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MONTHLY REPORT

OF THE

DEPARTMENT OF AGRICULTURE

FOR

NOVEMBER AND DECEMBER, 1875.



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# MONTHLY REPORT.

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DEPARTMENT OF AGRICULTURE,  
STATISTICAL DIVISION,  
Washington, D. C., Dec. 1, 1875.

SIR: I present herewith for publication a synopsis of the returns of statistical correspondents for November, showing the production of corn, cotton, potatoes, tobacco, and other crops, in comparison with the products of 1874; and domestic and foreign market-reports and minor statistics.

Respectfully,

J. R. DODGE,  
*Statistician.*

HON. FRED'K WATTS,  
*Commissioner.*

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## DIGEST OF CROP REPORTS.

### CORN.

Our November returns show the estimated corn yield of 1875 in percentages of the crop of 1874. The final estimate of the Department, however, is not made till after the reception of the December returns embracing the average yield per acre. The acreage having been given in previous reports, we shall then have the data for an independent estimate, which, by comparison with the aggregate yield reported in November, enables us to reach a common result by separate lines of inquiry. With this explanation the November returns are accepted as foreshadowing very nearly the final results. They indicate that the crop of 1875 was one of the largest ever grown in the country, probably equaling the very large crops of 1870 and 1872. It is at least a fourth greater than the crop of 1874, and about a third larger than the crop of 1869 reported in the last census.

Every section of the Union reports some increase. The New England States appear to have made a small increase; the Middle States about 10 per cent.; the South Atlantic Coast States a small advance, and the Gulf States about 17 per cent.; the Southern Inland States over 50 per cent.; of the States north of the Ohio, Illinois has made an enormous increase upon the small crop of last year, and the States west of the Mississippi nearly 60 per cent., or more than 100,000,000 bushels.

The quality of the crop is below that of 1874 in most of the States. In New England, only New Hampshire equals her previous crop in

this respect. It is remarkable that none of our reports from this State contain any complaints of injury from frost, while all the other States of this section will have a large proportion of soft corn, either from frost or imperfect ripening. Of the Middle States, New York and Pennsylvania report poor quality, while New Jersey and Delaware have sounder corn than in 1874. In Maryland and Virginia the quality of the crop is above average, in spite of local injuries; but in the other Atlantic Coast States the quantity is deficient. Complaints of rotten or chaffy corn are frequent in this region, while on the other hand the crop is regarded in many places as the best for many years. Of the Gulf States and Southern inland States, Florida and West Virginia report the average quality low, while all the others report crops of better quality than last year. The improvement in Arkansas is especially marked, being estimated at over 50 per cent. Local injuries from storms depressed the general average below what it would otherwise have been. Of the States north of the Ohio, only Illinois reports a crop equal to last year's in quality. The more northern counties report the greatest depression, which resulted from heavy frosts or cold, wet, autumnal weather. Floods and storms were especially destructive to crops in the larger valleys, but the injury from this source was greatly exaggerated in the first reports of the newspaper press. Rotten and chaffy corn will be in excess. The same causes injured the quality of the crop in Minnesota and Iowa, while in Missouri, Kansas, and Nebraska, the improvement in the quality of the crop keeps pace with its astonishing increase of yield. Early-planted crops were especially prolific and good. Local prices have been greatly depressed by large yields. On the Pacific coast the quality of the crop is nearly equal to last year.

MAINE.—*Sagadahoc*: Injured to some extent by early frosts. *Cumberland*: Injured by early frost.

NEW HAMPSHIRE.—*Rockingham*: The crop large, ripe, and sound throughout the county.

VERMONT.—*Rutland*: Did not ripen perfectly. *Lamoille*: Prevented from fully ripening by a heavy frost September 22.

MASSACHUSETTS.—*Berkshire*: Much soft corn.

CONNECTICUT.—*New London*: A little injured by frosts.

NEW YORK.—*Delaware*: A heavy frost June 14, and another September 23, made a short corn season. *Queens*: Very sound, and turns out, on being husked, much better than last year. *Washington*: The crop injured materially by a large white grub. *Steuben*: Affected by frost. *Warren*: A heavy growth of stalks, but not so well eared as usual, in proportion, and more soft corn. *Genesee*: Not well ripened when the frost came. Early planted was not much injured, but fields planted late are of little value. One acre of the best is of as much value as ten of the poorest. *Saratoga*: Injured by early frosts; very early planted fine. *Wayne*: Badly injured by the cold season. *Wyoming*: Injured some by frost. *Ontario*: Much soft. *Sullivan*: Much soft.

NEW JERSEY.—*Ocean*: The lightest crop harvested for many years, owing to extremely dry weather during the whole growing season. *Burlington*: Seldom favored with such a large crop. *Hudson*: The ears not so large or well filled as usual. *Salem*: Exceedingly good; 25 per cent. above average.

PENNSYLVANIA.—*Clearfield*: Frosts in June, drenching rains in July and August, and early frosts in September have injured the crop materially—more in quality than quantity, the great bulk being soft. *Clinton*: Late fields did not mature before the frost. *Perry*: The largest crop ever produced, and of good quality. *Elk*: Killing frosts in September injured almost all the crop; some fields not producing one sound ear in a bushel, and scarcely any ripening well. *Montgomery*: A full crop of very good quality. *Westmoreland*: A much larger portion of the crop than usual immature. *York*: The largest yield within a farmer's lifetime. *Armstrong*: Good on the hills, but the valleys frost-bitten; one-half soft. *Chester*: The largest yield for years, but more moldy corn than usual. *Cambria*: A great amount of soft corn, owing to late planting and early frost. *Sullivan*: One-fourth or more has not ripened. *Bedford*: Good crop in stalk and ear, but much of it not matured when frost came; 60 per cent. of late corn soft. *Beaver*: A great amount of soft corn. *Indiana*: More soft corn than was ex-



pected. *LANCASTER*: An immense crop; nearly all husked. *LAWRENCE*: An immense quantity of soft corn; killed by frost before ripe. *ERIE*: A good crop, but owing to wet and cold weather in October not seasoned well for husking and the crib. *LYCOMING*: A little thin on the ground, but well eared. *MONTGOMERY*: Being secured in good condition; not as much soft as was anticipated. *POTTER*: What escaped spring frost was injured by the cold before ripening; some estimate their yield as low as 10 per cent. *TIOGA*: Of inferior quality.

MARYLAND.—*CARROLL*: Will average 50 bushels per acre. *DORCHESTER*: An immense yield of extra fine quality. *HARFORD*: The best crop for years. *HOWARD*: A large crop, but a little more soft corn than usual. *CAROLINE*: Not turning out as well as anticipated before harvesting. *PRINCE GEORGE*: Larger crop than last year, but more rotten corn than usual. *BALTIMORE*: The finest crop for many years; the fodder carefully saved. *CALVERT*: Above average in quantity, but inferior in quality. *CECIL*: Never better.

VIRGINIA.—*CARROLL*: A greater quantity of soft corn than I ever saw in any year before, owing to early freezes; but the yield of good corn is far beyond any previous year. *FLUVANNA*: Better than an average crop by one-fourth. *POWHEATAN*: Now being gathered, and fully up to the standard of 150 in the October report. *SPOTTSYLVANIA*: Now being harvested; sound and fully 25 per cent. above last year. *CRAIG*: The largest crop for years, but one-third injured by frost. *FLOYD*: The quality injured 10 per cent. by frost. *KING GEORGE*: A fine crop of excellent quality. *MATTHEWS*: Farmers much disappointed in the yield; a larger bulk than usual, but poorly filled and a large quantity unsound. *PAGE*: Most of the crops are splendid, but the frost nipped some of the late corn, reducing the quality about 5 per cent. *PRINCE WILLIAM*: The replanted corn generally did not mature. *ELIZABETH CITY*: Much the largest and best crop since 1869; at least 25 per cent. increase in acreage, more than double the average yield, and superior excellence in quality, fully warrant the estimate of 250. *ORANGE*: The area exceeds that of last year 25 per cent., and the quality was never better. *AMELIA*: The excellent season of August and September has given a large crop. *HENRICO*: Unusually good. *KING AND QUEEN*: A decided improvement on any crop for six years. *MIDDLESEX*: Turning out well. *WYTHE*: The quality very fine. *CHESTERFIELD*: The largest yield since 1860 and the quality very good. *HALIFAX*: Yield and quality excellent. *HIGHLAND*: Much of it soft when frost came. *LANCASTER*: By far the best crop since the war. *WASHINGTON*: Not cured so as to crib. *WESTMORELAND*: Better than usual.

NORTH CAROLINA.—*FORSYTH*: A very large crop, but late and not well filled. *IREDELL*: Better than was expected. *NASH*: Better than for years. *HELFORD*: The best in ten years. *BEAUFORT*: Unusual crop; of good quality. *WILSON*: Inferior to last year's crop, much being rotten. *PERSON*: Very fine on upland; damaged by rain on flat-land, yet largely above average.

SOUTH CAROLINA.—*FAIRFIELD*: Saved in good order and turns out well. *MARLBOROUGH*: Large crop, but much complaint of rotten ears. *ORANGEBURGH*: As much made as last year, because more planted, but the yield is only 80.

GEORGIA.—*BERRIEN*: Yielded better than was expected. *HARRIS*: The drought did not injure corn as much as cotton. *GWINNETT*: The crop very spotted, varying from full average to less than half. *WORTH*: Light; not enough to bread the people. *CLAYTON*: Better than since the war. *FLOYD*: An unusual amount of rotten corn; not less than 12 to 15 per cent. *UPTON*: Turning out better than other crops. *DOOLY*: Yields better than expected. *MCINTOSH*: Cut off one-half by the late drought. *WILKINSON*: Very large crop planted; enough made to do the county. *WILCOX*: Chaffy and considerably rotten. *HANCOCK*: Very good. *TOWNS*: The best crop for several years.

FLORIDA.—*PUTNAM*: The acreage somewhat larger, but the crop short from drought.

ALABAMA.—*CLARKE*: Cut short by drought. *GREENE*: Has exceeded expectations in quantity and quality; is plenty and cheap—40 to 50 cents per bushel. *MONTGOMERY*: Better than for several years. *LAUDERDALE*: Never better. The yield of one acre, attested by good authority, measured 220 bushels, and received a premium at the State Grange fair; the largest yield known in our State. *MORGAN*: Will crib double the corn we did in 1874, and of much better quality. *CORINGTON*: A bountiful crop, owing to a large increase in acreage. *COLBERT*: The largest crop we ever had, and of the finest quality. *COCONUH*: Turning out better than expected in quantity and quality.

MISSISSIPPI.—*GRENADA*: The increased acreage makes the amount fully equal to last year's. *PIKE*: Turns out fine, and quality good. *NEWTON*: More rotten than last year, but that not rotten of better quality. *WAYNE*: A very satisfactory crop nearly gathered. *LOWNDES*: An abundant supply housed, and a surplus in many places. *JEFFERSON*: A good crop, all housed; enough, I think, for home consumption.

LOUISIANA.—*SAINT MARY*: The crop so abundant that no one will have to buy from the West. *IBERIA*: The crop largely better than any since the war. *MOREHOUSE*: The reduced quality due to storms which blew down the stalk and left the ear to rot on wet ground. *FRANKLIN*: Large percentage of rotten corn, caused by winds and rains. *SAINT LANDRY'S*: A good yield; all housed.

TEXAS.—*Dallas*: All harvested; yields from 30 to 50 bushels per acre. *Red River*: Abundant crop; price 50 cents. *Upshur*: Small crop, damaged by smut; much of it not fit for bread. The county will need 5,000 bushels imported. *Collin*: Harvested better than expected. *Harrison*: A shade better than last year. *Bosque*: Great complaint of smut. *Titus*: Far short of the crop of 1874.

ARKANSAS.—*Arkansas*: The best yield for many years, and mostly gathered in good order. *Boone*: The best crop I ever saw. *Prairie*: The most bountiful crop we ever had. *Fulton*: So much superior to last year's crop that I was tempted to put it at 500. The heavy crop yet generally ungathered. General sickness for the past two months has caused farming operations to be almost entirely suspended. *Marion*: Made; almost universally an astonishing yield. *Bradley*: Harvested, and enough for home-consumption. *Woodruff*: Better than last year, 25 per cent. *Franklin*: Good in yield and quality.

TENNESSEE.—*Monroe*: Best crop for many years. *Bradley*: More abundant than ever before. *Lincoln*: Will be more than double last year's crop. *Gibson*: Unprecedented in area, yield, and quality. *Greene*: Late, and much not fully matured. *Loudon*: Turning out very well. *Polk*: Not as good as supposed before gathering. *Putnam*: Abundant crop. *Cheatham*: The crop twice as large as last year, and the quality much better. *Rutherford*: Increased acreage and vastly increased product, and of excellent quality. *Wilson*: The largest crop for years. *Robertson*: Very fine in product and quality. *Sullivan*: Where properly manured and carefully cultivated, the crop is very heavy. *Tipton*: The crop unprecedented. *Bledsoe*: A good crop; the ears sound and well filled. *Giles*: By far the best crop since 1861.

WEST VIRGINIA.—*Raleigh*: Turned out very well, but the quality not so good. *Putnam*: Better than expected. *Ritchie*: Unusually late, and more soft corn than average. *Summers*: Not well matured; considerable soft corn. *Braxton*: Very good both in yield and quality. *Brooke*: So large a portion was immature when the frost killed the stock that the quality is much inferior. *Upshur*: Made a wonderful improvement in the last month; cured out beyond expectation. *Jefferson*: Ripened well. *Mercer*: Frost prevented the late-planted from maturing. *Boone*: Has dried out well; late corn quite chaffy. *Mason*: Late in maturing and injured to some extent by frost.

KENTUCKY.—*Lewis*: Never before so good or the product so great. *Cumberland*: Not a large yield per acre, but of superior quality. *Ohio*: Very well matured. *Callo-way*: Very fine. *Owsley*: Not more than half a crop. *Graves*: Never better. *Hardin*: Not turning out as well as expected. *Boyle*: Not well matured.

OHIO.—*Hocking*: Very fine yield, but some injured by early frost. *Pickaway*: Loose on the cob and inclined to be chaffy. *Preble*: Acreage greater than ever before, but poor yield and quality; injured by frosts. *Ross*: Chaffy; affected by early frosts. *Logan*: The product and quality considerably reduced by early frosts. *Warren*: Being gathered in fine order. *Coshocton*: Unusually good, but the frost came a little too early. *Sandusky*: A great deal of soft corn. *Van Wert*: Owing to early frost one-half soft and the other half rather poor. *Geauga*: Rather light. *Butler*: Poorer in yield and quality than expected. *Clarke*: Heavy, and being secured in good order. *Licking*: A great deal of soft corn in the level portions. *Medina*: Greatly exceeds the yield of last year, but poor in quality. *Mercer*: Very poor; not well matured. *Monroe*: At least 10 per cent. will be soft and unfit for market. *Noble*: Injured by frost. *Perry*: Large crop, but considerable soft, owing to frost. *Carroll*: Damaged by frosts. *Crawford*: Injured by frosts. *Delaware*: Increased acreage and greatly increased yield. *Holmes*: Large crop, but a considerable quantity overtaken by frost and not sound. *Athens*: Destroyed by floods on low-lands; a large crop on uplands, but much frosted. *Harrison*: Large yield, but not well matured. *Trumbull*: Much injured by frost; a great deal of soft.

MICHIGAN.—*Kalamazoo*: Considerable soft corn unfit for market, owing to early and severe frosts. *Wexford*: Almost entirely ruined by frost. One per cent. of a crop looks small, but it is fully as much as there is of sound corn. *Allegan*: Did not ripen, owing to early frosts. *Grand Traverse*: Injured by frost, back from the water. *Lapeer*: A good yield, but some soft corn owing to frost. *Ottawa*: The ripening stopped by frost while much was green. *Emmet*: Scarcely any matured. *Tuscola*: Serious injury by frost. *Van Buren*: Large amount of soft. *Washtenaw*: Much soft. *Lenawee*: Unusual growth and the best eared ever known, but injured by frost. *Barry*: A heavy crop but a great deal of soft, and nothing to feed it to. *Hillsdale*: Twenty per cent. soft, and not hogs enough to eat it. *Jackson*: Much larger amount of soft corn than usual; much the largest crop we ever had, but a small proportion sound. *Lake*: Badly damaged by frost. *Livingston*: Badly injured by frost. *Mason*: Almost an entire failure from frost. *Mecosta*: Cut off by early frost. *Muskegon*: Injured by frost. *Shiawassee*: Somewhat injured by early frosts. *Antrim*: Late planted not well ripened. *Charlevoix*: Injured by frosts. *Leclenaw*: Did not ripen well. *Newaygo*: Not more than 25 per cent. available for any purpose except immediate feeding. *Montcalm*: Nearly one-third soft, owing to frost. *Oakland*: A great deal soft, owing to frost. *Kent*: A heavy crop; badly injured by frost; 25 per cent. soft.



INDIANA.—*Grant*: Half a crop. *Madison*: Not more than half a crop, and that not of good quality; frost. *Posey*: The great flood swept away fully half the crop; the quality is good. *Decatur*: The rains caused the thin uplands to produce astonishingly, making up for the losses by high water. *Union*: Damaged by frost. *Ripley*: Loose on the cob. *Dearborn*: Lighter and more chaffy than last year. *Martin*: Much of it light and chaffy. *Wabash*: Poor; a cold, wet August and early frost will reduce the value of corn 50 per cent. *Warren*: Frosts injured the late planted; upland will yield 50 bushels per acre. *Wells*: Light and chaffy. *Hamilton*: A very large per cent. injured by frost. *Jasper*: All late corn unfit for market; damaged by frost. *Marshall*: Planted late and injured by early frosts; none yet fit to crib. *Warwick*: A great deal on bottoms entirely ruined. *Lawrence*: That left by the flood ripened well and is very sound. *Pike*: An average crop except on flat and bottom lands overflowed, on which 50,000 to 100,000 bushels were destroyed.

ILLINOIS.—*Henderson*: Late will be very light. *Fulton*: Large yield, but light and chaffy. *Lake*: The early frost destroyed the hope of a large yield of sound corn. *Woodford*: A very heavy crop. *Clinton*: Have not had as good a crop in the uplands for ten years. *Mercer*: Damaged by frost. *Pike*: Good and well matured. *Shelby*: All on high land well matured and yields 40 to 65 bushels; on low land, nipped by frost. *Grundy*: Yet unfit to crib. *Johnson*: Main crop in good condition, but late-planted injured by frost. *Lee*: Much soft. *Macoupin*: On upland, much better than usual; on lowland, injured by frost. *Vermilion*: Injured by frost. *Carroll*: Much soft. *De Kalb*: Did not ripen sufficiently to make good merchantable corn. *De Witt*: From 50 to 75 per cent. soft, and will not make good merchantable corn. *Iroquois*: The yield will be large, notwithstanding many pieces on flat land were destroyed; very little yet dry enough for cribbing. *Knox*: Damaged by frost; a wonderful quantity of soft corn. *Mason*: Late corn suffered from frost, but still the crop is very large and of good quality. *Ogle*: Badly injured by frost. Some farmers will not have half a crop in yield or quality. *Winnebago*: Not more than half a crop either year. *Franklin*: On all high land, never better in yield and quality; on low, flat land, a failure. *Montgomery*: Notwithstanding the amount drowned out, the crop is abundant, and is selling, delivered, at 25 cents. *Saint Clair*: Notwithstanding the losses by the heavy floods, we have an extraordinarily fine and well-matured crop; 60 to 80 bushels per acre on good cornland. *Effingham*: As good a yield as last year, and better in quality, but hardly half a crop. *Henry*: Very large in quantity, but materially injured by frost. *Boone*: A considerable amount of poor, soft corn. *Jefferson*: Superior in quality on high lands. *Fayette*: On high lands, turns out well; of the best quality, and a fine fall for gathering it. *Peoria*: Lighter in weight than was anticipated. *Morgan*: Comes out much better than was anticipated.

WISCONSIN.—*Eau Claire*: The light crop owing to frost, August 22. *Juneau*: So badly frost-bitten and nripe, that very little will do for seed. *Rock*: Did not mature well; yield light, and quality very poor. *Chippewa*: Ruined by frost in August; some pieces of early corn produced part of a crop. *Clark*: Almost entirely destroyed by the frost in August. *Dodge*: Nearly all killed by frost in August. *Walworth*: In the northern part, on all low ground an entire failure; all light and of poor quality. *Richland*: Too green and soft to crib. *Washington*: One-half is soft. *Iowa*: Killed on low ground by early frost.

MINNESOTA.—*Redwood*: The best yield ever grown. *Winona*: Late in maturing, and too soft for market. *Fillmore*: Poor crop, owing to frost and wet, cold autumn. *Wright*: Injured by frost. *Isanti*: A very large percentage is soft, owing to the severe frost August 22. *Goodhue*: Very little ripened. *Jackson*: The season too cool to secure a good crop. *Mille Lacs*: Injured by frost in August. *Rock*: Caught by frost in most places.

IOWA.—*Black Hawk*: A fine crop, but the quality very inferior owing to frost. *Story*: Frost-bitten and loose on the cob. *Johnson*: Damaged by frost. *Mitchell*: A very slim crop. *Pocahontas*: Not turning out as well as expected. *Guthrie*: Not as good as expected before husking. *Franklin*: Killed before ripe; loose on the cob. *Hardin*: The more the crop is handled the poorer it is found to be. *Marion*: More unmerchantable corn than usual. *Clinton*: The season too short and cold for the crop to mature; a large per cent. unfit for market. *Des Moines*: Taking yield and quality together, not half a crop; more soft corn than for the past five years, owing to frost. *Fremont*: Late corn very much damaged; otherwise we should have had an enormous crop; some make 125 bushels per acre. *Greene*: Did not fill out as was expected. *Harrison*: Slow in drying; but little gathered. *Howard*: Very little sound corn. *Jasper*: Frost came before maturity; scarcely an ear can be found not loose on the cob. *Polk*: Will not do to crib for a month to come. *Pottawattamie*: Price, 25 cents per bushel. *Woodbury*: Prevented from maturing by continued rains. *Calhoun*: Not yielding as well, and not as sound, as was anticipated. *Grundy*: Soft and much shrunken. *Linn*: Not as good as was anticipated; much loose on the cob. *Madison*: Not yielding as expected; light and chaffy. *Emmett*: A poor crop. *Shelby*: Twenty per cent. will be

soft. *Washington*: Late-planted, light and loose on the cob; injured by floods on flat lands; but early-planted on dry land, never better.

MISSOURI.—*Chariton*: The largest crop ever raised, and of excellent quality; many will gather 75 to 80 bushels per acre. *Greene*: The best crop in ten years. *Camden*: Late corn materially damaged by frosts, but the best crop for four years. *Nodaway*: This year and last, 50 per cent. of a crop. *Moniteau*: Extraordinary in yield and quality. *Benton*: Magnificent. *Christian*: An abundant yield. *Saint Clair*: Ten to one of last year, and very good quality. *Saint Francis*: Considerably injured by frost. *Johnson*: That planted in June and July killed by frost. *Perry*: Compared with last year, 150, but about an average crop. *Phelps*: Very much more abundant than last year, and better quality. *Morgan*: The largest crop ever raised, and very sound. *Newton*: Unusually large yield. *Lawrence*: Better than for the last ten years. *De Kalb*: The early planted not injured by grasshoppers, heavy; replanted, fair. *Holt*: Of the first stand, which is one-half the entire crop, the yield is enormous, being from 80 to 100 bushels and higher. *Howard*: The best for thirty-five years. *Dent*: Late, injured by frost. *Maries*: Now in fine condition for gathering. *Cape Girardeau*: Good in yield and quality. *Laclede*: Good, notwithstanding the floods destroyed much on the river-bottoms.

KANSAS.—*Jackson*: The very favorable fall for corn planted after the locusts had left, accounts for the high percentage; selling on the streets by wagon-load for 20 to 25 cents per bushel. *Marshall*: Some fields yield over 100 bushels per acre. *Miami*: An extraordinary breadth, and the season just right; ears 12 inches long, well filled with the most solid grains, quite common. *Mitchell*: Stalks 17 feet high, with two or three good ears. *Doniphan*: Planted about the first of July, it makes a remarkably good showing. *Smith*: Will yield about 50 bushels per acre; the best filled of any crop ever raised. *Cherokee*: The quality very superior. *Cowley*: The product at least 500 per cent. greater than last year, grasshoppers not considered; will produce 1,250,000 bushels. *Butler*: Much better than ever raised before; will average more than 50 bushels per acre, and in some instances will yield 100. *Clay*: Will yield 50 bushels per acre; price 15 cents at the depot. *Labette*: The yield enormously above anything we ever had before. *Osage*: Immense crop; much now in the crib, averaging 85 to 100 bushels per acre, and the general average 50 bushels, of superlative quality. *Atchison*: That planted before June 20, fully matured; that later, frosted. *Leavenworth*: More than average in quantity, but a part soft. *Shawnee*: Will average about 60 bushels per acre.

NEBRASKA.—*Dixon*: The best crop ever raised. *Lancaster*: So much that farmers hardly know what to do with it. *Webster*: Last year none; this 60 to 100 bushels per acre, and the quality extra. *Antelope*: Will average 30 bushels per acre; 10 per cent. soft. *York*: None last year; 20 per cent. above an average crop this. *Cass*: A large amount being planted after the grasshoppers left, about the 20th of June, will consequently be very light. *Thayer*: None last year; 125 in yield and quality this. *Clay*: An entire failure last year; this, runs from 20 to 60 bushels per acre, and averages 40; all sound; sells at 20 cents. *Nuckolls*: Sound and good. *Merrick*: Last year none; this, a better crop than for ten years. *Adams*: Last year all taken by the grasshoppers; this, a good crop.

OREGON.—*Douglas*: Cut short by drought.

COLORADO.—*Wild*: Has generally matured.

UTAH.—*Washington*: Extra good. *San Pete*: Light, and the quality inferior.

## POTATOES.

As foreshadowed in previous returns for condition, the crop is extraordinary in both product and quality. The total yield in the districts reported is made fully one-fourth greater than last year. Among the States producing heavy crops, New York exceeds last year's product 7 per cent.; Pennsylvania, 12; Ohio, 25; Michigan, 59; Indiana, 41; Illinois, 107; Wisconsin, 28; Iowa, 71. In Missouri, Kansas, and Nebraska, where partial failures were reported last year, the crops are very large, upon an increased acreage. North of the Potomac, States not claiming a larger yield than in 1874, are: New Jersey, 99; Delaware, 95; and Maryland, 86, the reduction being chiefly caused by early drought and by the beetle; and Maine 20 per cent. below last year in product, caused mainly by early rust, which killed the crop in many localities before maturing, and occasioned more or less rotting. In Arcostook County which grows potatoes on a large scale for both food and starch, and in which the yield is usually abundant and the quality superior, the ground



was "so saturated with water that the yield is light and the quality poor." The average quality for the State is 8 per cent. below that of last year, while in all the other New England States it is better than last year. Orleans, Vermont, has marketed many thousand bushels, at 20 to 25 cents, for starch. Berkshire, Massachusetts, reports the heaviest crops for many years, selling at 30 to 35 cents. In Washington and Warren, N. Y., the crop was injured "by a large white grub." Montgomery, Penn., reports that owing to the beetle many localities did not return the seed. But this is the only really adverse return. The prevailing descriptions of product are "immense," "prodigious," "greater than for twenty years," "greater than ever before," &c. The quality averages for the State 2 per cent. better than last year. The price reported in Cambria is 30 to 40 cents. In Virginia the yield is 8 per cent., and the average quantity is 3 per cent. better than in 1874. The returns from King George state that "neglected fields were completely ruined by the beetle," and from Washington, that the Peerless, especially, have rotted badly.

An unprecedented yield is indicated generally throughout the valleys of the Ohio, the Mississippi, and the Missouri. The same is true of Michigan as a whole, though there are some local exceptions. Menominee reports a yield much less than last year, but of good quality, while Delta reports a light yield, with quality much below par. In Antrim and Charlevoix, Peach-blows did not fully ripen. On the other hand, many counties report extraordinary crops in both yield and quality—among them, Lapeer, Lenawee, and Jackson, the largest ever grown; Nawaygo, the best in yield and quality ever known, "selling at 20 cents, if lucky enough to find a buyer;" Tuscola, an extra crop, selling at 25 cents. Williams, Ohio, reports the best crop in yield and quality ever grown; dull at 25 cents. "Many specimens weigh 3 to 4½ pounds." The minimum price is 15 cents, in Marshall, Indiana; Schuyler, Illinois; Blue Earth, Minnesota; Pottawattomie, Iowa; and Clay, Kansas. In Mitchell, Kansas, the Peerless yielded 400 bushels per acre; and Butler produced many single potatoes weighing more than 1½ pounds. Hall, Nebraska, reports that from about 3 acres 1,100 bushels of excellent quality were sold off.

MAINE.—*Piscataquis*: Small, owing to early rust. *Aroostook*: Extensively raised both for food and for starch. Usually an abundant yield of superior quality; but this year the crop has been so saturated with water that the yield is light and the quality poor. *Waldo*: Very light crop, owing to rust, and the quality not average. *Cumberland*: Rotting to some extent in the cellar.

VERMONT.—*Orleans*: Late potatoes injured by severe freezes. Many thousand bushels marketed for starch at 20 to 25 cents per bushel. *Rutland*: A large yield and low prices, 25 to 30 cents. *Caledonia*: Good yield and excellent quality.

MASSACHUSETTS.—*Berkshire*: The heaviest crop for many years, and of excellent quality: price, 30 to 35 cents.

NEW YORK.—*Washington*: The crop materially injured by a large white grub. *Warren*: Much lighter crop than was anticipated; injured by a large white grub, and Peach-blows injured by frost before fully grown. *Wyoming*: Some affected by the rot. *Sullivan*: Unusually good.

NEW JERSEY.—*Ocean*: The smallest yield for many years, owing to early dry weather, the beetles, and excessive rains in August. *Burlington*: Late varieties destroyed by the beetle.

PENNSYLVANIA.—*Elk*: A prodigious yield, of superior quality. *Montgomery*: Many localities did not return the bushels planted, owing to the Colorado beetle. *Armstrong*: Large, and in good condition. *Cambria*: Immense crop; selling at 30 to 40 cents. *Sullivan*: Never better. *Bedford*: Excellent. *Butler*: Not such a crop in quantity and quality for the last twenty years; all housed in good condition. *Mifflin*: Very large crop, and excellent in quality; more in the county than ever before in one year. *Columbia*: Gathered, and keeping well. *Lycoming*: The crop very abundant and the quality fine. *Tioga*: Less in yield, but of excellent quality.

MARYLAND.—*Fredrick*: A little rot. *Dorchester*: Almost a failure, on account of the

beetle. *Caroline*: Did better than was expected. *Prince George*: Late potatoes almost entirely destroyed by the beetle. *Baltimore*: Acreage much reduced, but the crop much better than last year.

**VIRGINIA.**—*Spottsylvania*: Large crop, and very fine. *King George*: The beetle completely ruined neglected crops. *Elizabeth City*: Much above average in quantity and quality. *Henrico*: Fine. *Chesterfield*: Very heavy yield; quality good and size large, some weighing 2 pounds each. *Highland*: Never better. *Lancaster*: Very good. *Washington*: Have rotted, especially the Peerless. *Westmoreland*: A good crop of very fine quality. *Wilson*: Small compared with last year.

**FLORIDA.**—*Suwannee*: The second crop not as good as the first.

**ALABAMA.**—*Lauderdale*: Good.

**TEXAS.**—*Dallas*: Yield and quality good. *Red River*: Abundant; price 75 cents. *Rusk*: The second crop promises a fair yield.

**ARKANSAS.**—*Fulton*: Excellent in yield and quality.

**TENNESSEE.**—*Monroe*: Good. *Bradley*: Few, but good. *Bledsoe*: Very good in yield and flavor.

**WEST VIRGINIA.**—*Ritchie*: Rotting to some extent. *Braxton*: A good crop in yield and quality. *Mason*: The largest crop ever raised.

**KENTUCKY.**—*Nicholas*: Larger yield and better quality than last year. *Osley*: Badly injured by the beetle.

**OHIO.**—*Ross*: The largest crop for years. *Williams*: In yield and quality the best crop ever raised. Many specimens weigh 3 to 4½ pounds. I saw one specimen which weighed 4 pounds and 10 ounces; selling at 25 cents, and dull at that. *Sandusky*: The best crop ever known. *Van Wert*: Plenty, and very fine; 25 to 35 cents per bushel. *Geauga*: The most abundant crop ever known; good quality; in some instances one-half the crop offered for digging. *Butler*: Late; very short, and poor in quality. *Medina*: Only 25 to 30 cents in the county, and in Cleveland market only 30 to 45 cents. The Jersey Peach-blows sell for the highest price, and Early Rose the lowest. *Monroe*: Good; 25 to 40 cents. *Perry*: Large crop, of good quality. *Delaware*: Early Rose very fine; later varieties not so good. *Athens*: A very large crop, of fine quality. *Trumbull*: More plenty, and cheaper than for many years.

**MICHIGAN.**—*Menominee*: Good in quality, but the yield much less than last year. *Wexford*: Enormous crop. *Lapeer*: The largest product ever raised, and the quality remarkably good. *Delta*: A light crop, and the quality much below par. *Tuscola*: Extra crop; 25 cents per bushel. *Lenawee*: The largest crop ever known. *Barry*: Has not been such a crop in ten years. *Jackson*: Largely exceeds any previous crop in yield and quality. *Mason*: Very good. *Antrim*: Early Rose first-rate; Peach-blows not ripe. *Charlevoix*: A great yield, but Peach-blows more or less injured by frost. *Newaygo*: The best crop ever known in yield and quality; sell for 20 cents, if lucky enough to find a buyer. *Montcalm*: A very large crop. *Kent*: A heavy crop; rotted considerable in heavy soil.

**INDIANA.**—*Decatur*: Yielded enormously, but rotted before digging. *Dubois*: Very large crop, but some rotted in the ground. *Jasper*: The best crop ever known. *Marshall*: Worth 15 to 20 cents, and slow sale at that. *Perry*: Small crop, of good quality.

**ILLINOIS.**—*Piatt*: Extraordinary crop in both yield and quality. *Fulton*: The finest crop for many years. *Woodford*: A very heavy crop. *Clinton*: First-rate. *Pike*: Good and cheap. *Sangamon*: Very abundant. *Montgomery*: Plenty, the first time for many years, and of excellent quality. *Schuyler*: I think 250 rather under than over the mark. There is but little demand for potatoes at 15 to 20 cents per bushel. *Boone*: Very large and fine. *Fayette*: The finest crop ever raised. *Morgan*: Very great yield, but of poor quality.

**WISCONSIN.**—*Chippewa*: Early, very good; many late pieces were not dug. *Dodge*: Good in yield and quality. *Walworth*: Large yield, of good quality. *Crawford*: A big crop. *Iowa*: Injured by early frosts.

**MINNESOTA.**—*Meeker*: Remarkable yield. *Blue Earth*: Plenty, at 15 cents per bushel. *Redwood*: Excellent in yield and quality. *Steele*: Large crop. *Waseca*: Better than for many years.

**IOWA.**—*Pocahontas*: Excellent in yield and quality. *Marion*: Rotting to some extent. *Harrison*: Very fine in yield and quality. *Muscatine*: The quality decidedly poor. A peculiar dry black rot has attacked them. *Polk*: The best crop for many years. *Pottawatomie*: Price, 15 to 25 cents per bushel. *Linn*: Splendid crop. *Scott*: Unusually large crop and very fine.

**MISSOURI.**—*Chariton*: A large yield, of excellent quality. *Greene*: The best crop in ten years. *Camden*: Remarkably fine. *Cass*: Never a better crop. *Newton*: Good yield and fine quality. *Lawrence*: The Early Rose 50 per cent. superior to any crop for five years.

**KANSAS.**—*Miami*: The crop wonderful for extent, size, and quality. *Mitchell*: Peerless, 400 bushels per acre. *Cherokee*: The finest crop ever raised. *Cowley*: Very fine in yield and quality. *Butler*: The crop has scarcely a precedent, making in some instances 200 bushels per acre, of the best quality, many of the potatoes weighing more



than 1½ pounds each. *Clay*: Never better; price, 15 to 20 cents. *Labette*: Never better. *Osage*: Exceeds any crop before raised. *Leavenworth*: Badly ripened.

NEBRASKA.—*Dixon*: The best crop ever raised. *Laurel*: Very large crop. *Hall*: The farmers of Nebraska will remember 1875 as "the great potato year." From about 3 acres 1,100 bushels of excellent quality were sold off. *Antelope*: An enormous yield: will average 225 bushels per acre, and one acre of my own gave 325, Early Rose and Harrison, of excellent quality. *Clay*: An increase of 25 per cent. in acreage; the yield twice that of last year, and the quality much better. *Nuckolls*: Good, and free from disease. *Merrick*: Quantity and quality better than since the world began.

CALIFORNIA.—*Sonoma*: Injured by blight. *Lake*: Unusually good. *Mendocino*: Badly affected by the blight.

OREGON.—*Douglas*: Cut short by drought.

COLORADO.—*Wild*: Remarkably good crop.

UTAH.—*San Pete*: Light crop, but the quality very good.

## SWEET-POTATOES.

In the rainy section the crop suffered in yield and quality from excessive moisture. In the Gulf States and west of the Mississippi the yield largely exceeds that of last year, and the quality is about average. In New Jersey, Delaware, and Maryland the product is about 3 per cent. greater than in 1874; the quality in the two former is slightly depreciated, and in the latter slightly improved.

MARYLAND.—*Worcester*: Not average. The summer rains caused rank growth to the vines at the expense of the potatoes. *Caroline*: Turned out well.

VIRGINIA.—*Patrick*: Too much rain for this crop. *Matthews*: Very short crop; too much rain. *Henrico*: Fine. *Northampton*: Inferior in quality. *Chesterfield*: Quality excellent. *Laurel*: Very good.

NORTH CAROLINA.—*Iredell*: Of fine quality. *Nash*: Very fine. *Gaston*: Good. *Chowan*: Only three-quarters of a crop.

GEORGIA.—*Berrien*: Materially benefited by recent rains. *Wayne*: Suffered much from drought; not more than half a crop. *Clayton*: Short; owing to drought. *McIntosh*: Cut off one-half by the late drought. *Wilcox*: Cut short by dry hot weather.

ALABAMA.—*Clarke*: Doing well since September rains. *Montgomery*: Turning out exceedingly well. *Lauderdale*: Good. *Covington*: Yield per acre short, but large increase in acreage.

MISSISSIPPI.—*Pike*: Abundant and fine. *Newton*: Of superior quality. *Jefferson*: Splendid.

TEXAS.—*Dallas*: Fine yield, of unsurpassed quality. *Red River*: Abundant; price 75 cents. *Upshur*: Quality much better than last year. *Harrison*: Good.

ARKANSAS.—*Arkansas*: A bountiful crop, of first quality. *Fulton*: Materially injured by drought.

TENNESSEE.—*Monroe*: Almost a failure. *Grundy*: Inferior in size and quality. *Greene*: Better in quality than quantity. *Cheatham*: A fair crop last year, and better this. *Bledsoe*: Generally very small. *Mason*: The largest crop ever raised. *Owsley*: Injured by the rains, and cut short by frost.

OHIO.—*Athens*: Less than average, and not good.

INDIANA.—*Ripley*: Yielded well, but were poor in quality.

IOWA.—*Harrison*: Too wet for sweet-potatoes.

MISSOURI.—*Chariton*: A large yield of excellent quality. *Camden*: A magnificent crop. Some specimens weigh 7 to 10 pounds.

KANSAS.—*Miami*: Too wet for sweet-potatoes. *Cowley*: Very fine in yield and quality.

## COTTON.

November returns make a direct comparison of the product of this year with that of 1874. As former reports of condition have indicated, the States bordering on the Atlantic all show a reduced product, and those in the Mississippi Valley an increased yield.

Prior to November 1, killing frosts had appeared in the more northern States of the cotton-belt, in some counties of Northern Georgia, and in the district north of the Tennessee River, in Alabama. Elsewhere the cotton-plant was uninjured, and generally in vigorous growth on the best lands. In one parish in Louisiana (Claiborne) it is claimed that



a week's continuance of fine weather would increase the local yield several hundred bales.

There is much inequality in the progress of packing. In some counties of Georgia and Alabama the harvest is nearly over. In Mississippi, the work has been delayed by political difficulties and by sickness. In Washington County, two-thirds of the crop was ungathered, and it was feared that Christmas would find one-fourth still in the fields.

Fine weather has been the rule, with a few exceptions; but in Louisiana much fiber has been lost or stained by storms. The effect of the great September storm in Southern Texas proves less disastrous than was at first represented.

The amount of lint in comparison with weight of seed-cotton is quite variable, ranging from 25 to 33 per cent., but, so far as reported, appears to be less than in 1874.

The State percentages, representing the aggregate quantity as compared with last year, are as follows: North Carolina, 91; South Carolina, 76; Georgia, 74; Florida, 90; Alabama, 102; Mississippi, 111; Louisiana, 100; Texas, 114; Arkansas, 135; Tennessee, 116.

From a review of the monthly returns of correspondents, it appears that the area in cotton was increased about 2 per cent. The plant obtained rather a fairer start than usual, though germination was delayed on the Atlantic coast region. The June returns averaged, in condition, a small percentage under the standard of good development; in July, improvement was indicated in every State except Texas, where drought and insects were locally injurious, and the average condition of the entire area was very near the standard, or 100; in August, the effect of drought, particularly in South Carolina, Georgia, and Louisiana, was manifest in a small reduction of their percentages, yet the general average for this month was fully as high as that of June; and in August and September the blighting of drought was followed by excessive rains, causing injury by floods, by the shedding of bolls, by rust, and other abnormal conditions, reducing the general percentage, month by month, from August to October. The following comprises the tabulated statement of the season from June to November inclusive:

States.	Acreage, per cent. of last year.	Condition: 100 representing average growth and unim- paired vitality.					Product compared with last year.
		June.	July.	August.	September.	October.	
North Carolina .....	102	92	95	99	90	85	91
South Carolina .....	106	97	99	84	80	77	76
Georgia .....	96	91	97	86	76	71	74
Florida .....	99	94	101	85	75	70	90
Alabama .....	104	101	102	93	87	94	102
Mississippi .....	102	100	103	104	98	96	111
Louisiana .....	101	95	105	99	88	90	100
Texas .....	103	96	93	93	94	88	114
Arkansas .....	101	90	104	108	99	103	135
Tennessee .....	92	99	109	107	96	90	116

The percentages of the several monthly returns of the present year, up to the last report of "condition," in October, were higher than in the previous year, and naturally indicative of a larger crop. A possible modification of this increase—scarcely a total destruction of it—might arise in case of an early frost and bad weather for opening and picking, or both circumstances combined.

Next we come to the first direct estimates of quantity expected, made November 1, before killing frosts appear in the main cotton-belt. The tabulation of these gives the November percentages represented the quantity expected this year, compared with the *actual crop harvested last year*—figures about which there is no mystery or difficulty, expressing their meaning so plainly that a wayfaring cotton-broker, though a fool in his assumed simplicity, need not err therein.

Such is the record made by our correspondents. There will be one more in December, when all, except a portion of the last picking, has been gathered. Till then no estimate of the total product will be made by the statistician. It may be stated, however, to avoid misunderstanding, that the accurate figuring of the November percentages makes an aggregate approximating 3,900,000 bales—not 50,000 less, as some have calculated, their error consisting in giving too large a number of bales to the seaboard States, whose percentages are low, and too small totals to the Western States, especially in giving Alabama a larger production than Mississippi, which she lacks by nearly 20 per cent. But the November returns are always more conservative than those of condition during the summer, and a careful analysis of the season's reports, in all their aspects, would compel an estimate, if made with no further data, not far from five per cent. greater than the returns of November alone would indicate. It might be still larger but for comparative lateness of development and reduced yield of lint in proportion to seed. This renders it almost certain that the crop will pass the limit of 4,000,000 bales. So much may be said in advance of the final return and official estimate.

The best cotton-authorities of this country and of Europe have already made interpretations of the season's returns, which accord with their obvious general tenor. Among them may be named that eminent European authority, the firm of Ellison & Co., of Liverpool, an extract from whose communication of October 30 is as follows :

Upon the basis of your reports we have made very successful estimates of the cotton-crop for two seasons past. Our plan is not to take the condition for any one month, but the average condition for the season. We may or may not be right in our theory, but for two seasons we have been successful. For the present crop we put down 3,900,000 to 4,100,000 in July last, when other people were making 4,500,000 to 4,800,000 out of your figures. Since then the tendency has been to come down to our figures. At present we lean toward 4,100,000, owing to the improved condition shown in your last report, and we think 4,250,000 possible with an open winter; but we think 4,500,000 out of the question, and we do not think that at any time this season so large a crop as 4,500,000 looked at all likely.

Experienced statisticians will not be guilty of the absurdity of interpreting any series of crop-reports by a comparison of the returns of any one month with those of the same month of the previous year, without reference to all the facts reported throughout the season. With fair expression of the most reliable human judgment as to the condition of the growing plant, it would be an impossible thing to indicate in advance the ultimate outcome in pounds of cotton, even if the state of future weather and length of the cotton season could be determined with prophetic accuracy. In an expected crop of four million bales, a reduction of the lint from 30 to 28½ pounds in each 100 pounds of seed-cotton would reduce the yield 200,000 bales; and there is greater difference than this in the yield of different years. If killing frost cuts short the period of growth and maturation a single week, the season is shortened one-tenth, and the crop, other circumstances being equal, is reduced at least a quarter of a million bales; and if the weather afterward con-



duces to waste and prevents picking, the reduction may be a half million bales.

These are circumstances that *may*, if all combined, which would be unusual but not impossible, reduce an expectancy of 4,000,000 bales in October of any given year to 3,300,000, or raise it to 4,700,000. Therefore it becomes the duty of the crop-reporter to give present facts rather than utter prophecies that the weather or other agency may overturn in the next ten days. Even after the crop was nearly gathered and almost half of it marketed, there were savans skilled in cotton lore that last winter exceeded the truth a round half million bales in their estimates.

The following extracts from correspondence are appended:

VIRGINIA.—*Dinwiddie*: The diminished area to make room for tobacco shortened the crop. It is opening well.

NORTH CAROLINA.—*Iredell*: The crop better than was expected. *Nash*: Short staple. Rust on some lands. Fine time for picking. *Gaston*: The frost about the 12th of October caused a much larger per cent. of unripe bolls than was expected. *Beaufort*: The picking season has been rather too wet, causing some rotting of bolls. *Chowan*: Injured by rust; staple short. Fine weather for picking. *Wake*: Short crops; the first picking yielded an astonishingly small proportion of lint; the late picking yields better. *Wilson*: Staple short and not yielding well. *Camden*: Better than indicated one month ago; the weather all that could be desired. *Anson*: Materially shortened by protracted drought and early frost. *Rutherford*: The increased product owing to increase in acreage.

SOUTH CAROLINA.—*Fairfield*: The great frost on the 16th of October cut short all hope of an average crop. *Marlborough*: All gathered, and turning out unusually bad from the seed; it requires 1,400 pounds to make a bale this year in place of 1,200 last. The weather was fine for picking and the lint is clean. *Orangeburgh*: Injured by drought. *Clarendon*: Less than half the product of last year; four pounds of seed yield one of lint. *Marion*: The yield of lint 10 per cent. less than last year, the seed-cotton being 80. *Newberry*: The yield higher than expected, but the lint rather short. *Georgetown*: Injured by frost on the 16th of October. *Lexington*: Not over two-thirds of a crop, but the quality very fine. *Spartanburgh*: Late cotton injured by frost. *Edgefield*: The percentage of poor cotton smaller than ever before. *Laurens*: Will be more yellow cotton than usual. The proportion of lint to seed-cotton less than last year.

GEORGIA.—*Berrien*: The top-crop materially benefited by recent rains. *Harris*: Almost a complete failure. *Montgomery*: Yielding much better than anticipated; the staple much better than usual and the finest weather for picking. *Dougherty*: Have had through the month splendid weather for cotton, which, if it continues, will add materially to the crop. *Forsyth*: Not over 75 per cent. of an average; 1,700 bales, of 450 pounds, will cover the crop, and 300 of these will be stained. *Gwinnett*: The staple is fine, and yields one pound of lint to three in seed, and pay for ginning. *Terrell*: The weather warm and dry, and some cotton may yet open. *Worth*: Badly rusted, and lint very light. *Clayton*: Very favorable for gathering; nearly all picked out in good condition and is of good quality. *Floyd*: The top-crop greatly damaged by a killing frost October 14. *Upson*: Short crop, and of inferior quality. *Dooly*: Badly injured by dry weather and rust. *McIntosh*: Cut off one-half by the late drought. *Mitchell*: Rusted and shed its fruit. *Wilkinson*: Injured by drought and rust. *Wilcox*: Cut short by drought and rust. *Carroll*: Light yield, owing to drought and rust. *Hancock*: Turning out poorly. *Walton*: The crop will be full average. *Whitfield*: Greatly injured by severe frosts. *Appling*: The full crop cut short by dry weather. *Douglas*: Favorable weather for picking. *Putnam*: A frost, about three weeks since, killed all the cotton. *Milton*: Owing to favorable weather, the yield at least 10 per cent. better than anticipated. *Early*: A wonderful top-crop of grown and half-grown bolls, but slow in opening.

FLORIDA.—*Gadsden*: The promise of a top crop on clay-lands has improved since the last report. Favorable weather for picking and help abundant.

ALABAMA.—*Clarke*: Since the September rains a new crop has started in places; a large number of bolls, nearly full grown, are on the plants, and, should no severe frost come, will open and make cotton in eight or ten days. *Greene*: Said to be the best crop for many years. *Madison*: Injured 10 per cent by the heavy frosts. *Montgomery*: Will average about 170 pounds of lint per acre. *Shelby*: Favorable weather for cotton-opening. *Chambers*: Nearly all gathered and sold. *Lauderdale*: The lightest crop since 1866. *Limestone*: Cut off fully 33 per cent. by a destructive frost October 12. *Russell*: The bulk of the crop gathered and sold. *Franklin*: Scarcely two-thirds of a crop will be gathered. *Monroe*: Very favorable for gathering. The quality of the

lint not so good as last year, owing to drought and rust. *Covington*: A large increase in the quantity planted, but shortened by what is reported as rust, but is in reality the ravages of small insects. *Colbert*: Favorable season for picking, but a large part yet unpicked for want of labor. Will average about 700 pounds per acre in seed-cotton and 235 in lint. *Wilcox*: Very favorable for picking. *Barlow*: Very favorable for gathering; picking almost finished. *Conecuh*: Owing to absence of frost the plant is doing well, and will reach a full crop. *Bullock*: The favorable fall has improved the yield greatly.

MISSISSIPPI.—*Grenada*: The increased acreage makes the aggregate 10 per cent, greater than last year. Not more than half as much picked out as last year at the same date, owing to much sickness, politics, and laziness. *Pike*: Nearly a full crop, but the quality not very good; being gathered and brought to market rapidly. *Warren*: Some loss by rains and winds. *Lafayette*: The quality greatly improved by the favorable weather of the past month. *Newton*: The yield fully one-third less than last year and the lint of inferior quality. *Wayne*: Since the 15th of August has grown finely, and is maturing very well. *Washington*: From present appearances nearly one-fourth of the crop will be found in the fields on the 1st of January for want of labor; not one-third yet gathered, though the better part of the season is past. *Lee*: An unusual amount open and unpicked in the field. *Louises*: Favorable weather for gathering. *Tishomingo*: Not as much in market at date as last year, owing to much sickness. *Adams*: Fine weather for picking. *Jefferson*: Reduced by early frost, rot, and rust.

LOUISIANA.—*Iberia*: The crop largely better than any since the war. *Lafayette*: Last year, 50 per cent. of an average; this year, 75. *Caldwell*: More favorable than anticipated in September. *Morehead*: Turning out better than was expected. *West Feliciana*: The picking-season one of the most unfavorable ever known, owing to excessive rains. *Caddo*: Very trashy, from being beaten and blown out of the bolls by wind and rain. Labor picking well, and the crop will all be gathered early. *Madison*: The crop being saved in very good condition. *Claiborne*: Heavy rains and winds have greatly injured the quality. There is now a crop of green bolls just beginning to open, good staple, and, if the present favorable weather holds on a week, the crop in this parish will be increased several hundred bales. *Franklin*: The yield of seed-cotton per acre will equal last year's, with a greater proportion of lint of superior quality. *Saint Landry*: Fine weather for picking. *Concordia*: Picking retarded by sickness; loss by storms and rot; an immense amount open and unpicked.

TEXAS.—*Bowie*: Turning out a great deal better than expected. The Red River bottoms are yielding an average of 500 pounds of lint per acre and the uplands 200. *Dallas*: Turning out finely. The crop will average 400 pounds of lint per acre, and in quality will class above any crop before raised in the county. *Palo Pinto*: Better than for several years. *Washington*: Yields a little over half a bale per acre. *Red River*: Abundant crop; better than for many years. Fine weather for picking, but labor scarce. *Upshur*: The fall remarkably favorable for the maturing of the late crop; often see the cotton-bolls ripe and open from the ground to the top. *Williamson*: Acreage and product increased over last year. *Collin*: Opening very fine, and very favorable weather for picking. *Cooke*: Good time for picking. *Falls*: The fall very favorable for cotton. *Rusk*: The greater portion gathered. *Lavaca*: The top crop is maturing, and much has already matured. The cotton from this county has graded higher than ever before. *Polk*: The damage by flood and wind not as great as at first supposed. *Anderson*: Favorable indications for a heavy top crop. *Harrison*: The crop nearly all gathered. *Lamar*: Far the largest and best crop since the war; the lint very fine and good; classes very high in market. *Nacogdoches*: The crop has improved. *Smith*: Fine weather, and the crop still doing well. *Bosque*: All late cotton damaged by drought and early frost, but very fine season for picking; quality good. *Titus*: Yield much better than expected; the weather fine and the crop nearly gathered; lint fine and staple better than for many years. *Fort Bend*: Owing to the very favorable weather, much more has been picked than was anticipated. *Bastrop*: Mostly saved, owing to the favorable season. *Matagorda*: A fair indication of nearly half a bale per acre. *Hunt*: Fine weather for picking.

ARKANSAS.—*Arkansas*: Good; great part picked; favorable weather. *Boone*: The dry weather the last two months has caused the crop to open better than usual. *Little River*: Extraordinary yields; in four or five large crops the first picking is reported as yielding 2,000 pounds per acre, and as much more in the field. *Dallas*: Most favorable weather for housing the crop. The fiber the best I have seen for years. The labor better than it has been. *Fulton*: So much superior to last year's crop that I was tempted to put it at 500. *Izard*: Very favorable fall for picking, but much sickness has caused the larger part to be left still hanging on the stalk. *Marion*: On very rich soil the stalk grew too large, but on land not so rich, particularly on sandy soil, the crop was extra fine and opened well. The lint of fine quality. *Saint Francis*: Greatly damaged by rust or blight. *Yell*: The season has been very favorable for opening and picking. Some farmers have made 450 pounds of lint per acre. *Bradley*: Being gath-



ered slowly, owing to more sickness than for a number of years. *Independence*: Seriously injured by early and severe frosts. Very favorable for picking. *Woodruff*: Will fall short of the September estimate 33 per cent. *Ouachita*: Matured and opened earlier than ever known before. Weather very favorable. *Franklin*: In making the estimate 130 indicates the quality; the aggregate product will be at least 200 per cent. more. The fall exceedingly favorable for cotton. The staple is good in quality and condition.

**TENNESSEE.**—*Lincoln*: Seriously injured by frost. *Maury*: Seriously damaged by frost. *Gibson*: Very seriously damaged by frost. *Putnam*: Slow in opening and not as good as usual. *Fayette*: Better than last year 10 per cent., but 15 to 20 per cent. below an average. *Rutherford*: Damaged by frosts. *Wilson*: The yield very light. *Tipton*: The acreage 10 per cent. less, but the crop 10 per cent. greater than last year. *Hardeman*: Very fine on new lands, but light on old. *Giles*: The outlook gloomy; the crop will prove a great loss to those growing it.

## TOBACCO.

Our November returns indicate an increase in the tobacco-yield of over 75 per cent. as compared with last year, when a partial failure was experienced. All the large tobacco States show a marked increase in production, especially Tennessee and Kentucky. The New England crop has increased about 10 per cent. in quantity, and every county reporting from this region indicates a greater or less improvement in quality. The cut-worm was injurious in some parts of Connecticut during the early stages of the crop, making the growth somewhat uneven, but favorable conditions for curing indicate a very fine quality for leaves for cigar-wrappers. The other tobacco States of the Atlantic slope indicate an increased production and an improved quality. Maryland increases her yield about one-tenth and Virginia and North Carolina between a fourth and a third. Worms were troublesome, disfiguring the leaf in Amelia, Virginia; and excessive rains are complained of in one or two counties; but the general conditions of growth, harvesting, and curing appear to have been very satisfactory. Iredell, North Carolina, reports the finest bright wrappers ever produced in that county. Quite a number of counties doubled their production. Georgia and the Gulf States all show an increased yield. In Bowie, Texas, some farmers made two crops. The plant will probably be grown on an enlarged scale in this region hereafter. All the Southern inland States show an increased product and an improved quality. A lack of skill in curing is noticed in some counties of Arkansas and Kentucky. In some of the more northern counties frost cut off some of the crops, and in others a lack of sunshine is noted; but these were exceptions to the prevalence of good growing and curing weather. No complaints of any sort accompany the reports of Tennessee, where the yield has increased enormously from last year. In all the tobacco States north of the Ohio River there has been an increased production, but a greater or less decline in quality. In many cases the crop was cut green to avoid frost, which was very destructive. All the States west of the Mississippi report a great increase in yield, especially Missouri and Nebraska. Chariton and Howard Counties, Missouri, will probably market each 10,000,000 pounds of fine quality. Frost was but slightly felt here, but was more severe in some other counties. In Contra Costa, California, an experiment in tobacco-culture upon thirty acres of dry soil, unirrigated, was quite successful. It is thought that California can raise a very fine article of smoking-tobacco.

**CONNECTICUT.**—*Hartford*: Very much injured by the cut-worm in its earlier stages, which makes the growth uneven. Favorable weather for curing, and appearances indicate a very fine leaf for cigar-wrappers.

**MARYLAND.**—*Montgomery*: Perhaps the largest crop ever grown. The quality generally good and secured in good condition. *Howard*: A good planting, growing, and



gathering season and a larger area than usual combine to give us a large crop. *Charles*: The crop one-third better in quantity and quality than last year, and the yield of last year was underestimated. *Calvert*: The season for curing fine.

VIRGINIA.—*Caroline*: Harvested in good condition; the weather favorable for curing. *Carroll*: Beyond any previous year in quantity and quality. All I have seen is of the first grade, and will be used exclusively for wrappers. *Fluvanna*: The largest crop for 10 years. *Pohatan*: The figures (200 for quantity and 150 for quality) I think are below the reality, but prefer to fall below the mark rather than overestimate. *Spottsylvania*: Tobacco (marked 150) ought to be put 300 for quantity. *Pittsylvania*: The quality injured by too much rain. *Dinwiddie*: The area twice that of last year. The crop was cultivated and secured with more care than any previous one; no grass to bother, but few worms, and just rain enough to make it grow. *Orange*: The season has been unusually favorable for curing, and the quality will be above average. *Amelia*: The excellent season of August and September has given a large crop. The yield is large in pounds, but the leaf is disfigured by worms. They were more numerous than ever before. *Henrico*: We have but little, but the yield is double the average. *Chesterfield*: Large area, yield very heavy, cut and cured in good condition: quality average. *Grayson*: Much larger and better product than last year. *Halifax*: Quality injured by excessive rains. *Mecklenburgh*: The season very propitious for cutting and curing: none injured by frost.

NORTH CAROLINA.—*Forsyth*: A very large crop; I think over 1,000,000 pounds in this county. *Iredell*: All housed and safe; at least double the quantity of last year and fully equal in quality. Have seen the finest samples of bright wrappers that I have ever seen in the county. *Haywood*: The wet which destroyed the cereals has been an advantage to the tobacco. *Caswell*: The staple in this county, poor in quality, in weight will fall 25 to 30 per cent. below the average. *Davie*: Double last year's amount, and of better quality. *Person*: Seriously damaged by wet weather while ripening, yet almost a double crop.

FLORIDA.—*La Fayette*: Badly injured by drought.

ALABAMA.—*Covington*: Increased acreage and the quality improved as the farmers learn better how to handle it.

TEXAS.—*Bowie*: Will be an extensive product in the future. Better this year than ever known before, and in many instances has made two crops. *Titus*: A large crop planted, but much died out from drought.

ARKANSAS.—*Arkansas*: A good crop, but not well cured in some places. *Fulton*: A choice crop in yield and quality.

TENNESSEE.—*Mauzy*: Not over fifty acres last year; this year the acreage ten times greater. *Gibson*: The area larger than since 1865. *Putnam*: Acreage 50 per cent. above average and the quality very good. *Cheatham*: Have put the crop at five times as much as last year, and think this is short of the reality. The quality is much better. *Trousdale*: The fall very favorable for tobacco. The crop will be larger in pounds than in 1873, but not so good in quality. *Wilson*: A large crop has been made and all cut before frost. *Dickson*: Housed in good condition. *Robertson*: Will about equal the crop of 1873 in product, and the quality 25 per cent. better than last year. *Lewis*: Five times the amount that was raised last year.

WEST VIRGINIA.—*Putnam*: Too much rain and too little sunshine for the crop. *Summers*: Above the average in every respect 50 per cent.

KENTUCKY.—*Adair*: The latter part of the season very favorable and the crop improved very much. *Lewis*: The product very satisfactory. Inexperience in tending and securing the crop affected the grade and quality. *Cumberland*: The greater portion will be of inferior quality. *Nichols*: Some injured by the early frosts. *Ohio*: The last six weeks quite favorable, and the yield will be larger and the quality better than anticipated. *Todd*: About 90 per cent. of an average crop, but the product compared with last year is 150. *Warren*: All housed and of fine quality. *Breckinridge*: A full average crop for any year. The quality reduced by its being of a smaller staple. *Graves*: The largest crop we have ever housed, but somewhat impaired in quality. *Butler*: A large crop and but little frosted.

INDIANA.—*Vanderburgh*: Not quite a full crop, but the quantity at least double that of last year. *Warwick*: A poor crop in yield and quality.

ILLINOIS.—*Johnson*: Most of the crop was cut too green through fear of frost, hence the inferior quality.

WISCONSIN.—*Rock*: Acres in 1874, 518; in 1875, 2,210. A good growth, but the August frosts did much damage, especially on low ground.

MISSOURI.—*Chariton*: The crop estimated at 10,000,000 to 12,000,000 pounds in the county. Many think this estimate too low. The quality is fine. Not damaged by worms or storms, and but a small portion by frost, and that slightly. *Camden*: A heavy crop, but somewhat damaged by frost. *Perry*: Average with last year, but only half a crop and poor quality. *Howard*: The yield will probably reach 10,000,000 pounds.

CALIFORNIA.—*Contra Costa*: About 30 acres were raised for the first time. It did remarkably well on dry soil, without irrigation. The promise is that we can raise the finer varieties of smoking-tobacco to perfection.

## FRUIT.

The yield of the various fruits corresponds to the low condition indicated in our previous reports. The year has been mostly one of disaster to the fruit-growers, though some parts of the country have enjoyed a total or partial exemption from this injury. Late spring-frosts following severe winter-freezes, with the recurrence of low temperatures in April, crippled all the leading crops at the opening of the season. Insect-injuries were inconsiderable in extent, though quite a variety of these pests were noted at different times in different parts of the country. The severe winter of the previous year had killed many of the bearing trees. Those parts of the country which received good crops found the high prices of transportation a great hinderance to their disposal; so that, while some communities were entirely destitute, others were compelled to see their crops rot on their hands or dispose of them at unremunerative prices.

**GRAPES.**—Grapes attained higher condition than either apples or peaches, yet the yield equals last year only in Rhode Island, Delaware, Maryland, Mississippi, Texas, Arkansas, and Oregon. In New England early autumnal frosts shortened the crop. In some parts of New York and Pennsylvania the fruit did not ripen, but turned sour; while, in Virginia and South Carolina, there is complaint of late spring-frosts. In South Carolina there was a tendency to rot, but the Scuppernon showed its characteristic vitality in the South generally. Few specific complaints came from the region south of the Ohio River, Texas, or Arkansas, though the yield in several of these States was below last year, Kentucky not being over two-thirds. North of the Ohio River and west of the Mississippi River the crop was quite scanty. In the southern counties there was a tendency to rot, while to the north there was a failure to mature and an early recurrence of frost to cut off the crop; yet some counties report extra crops. The crop of California, though full average, falls 10 per cent. short of last year in its yield. In Lake County the crop was injured by the white fly. In Utah grapes which escaped frost were generally fine.

**APPLES.**—The apple-crop yielded above last year in Rhode Island, Mississippi, Texas, and Arkansas. In all the other States the yield is reduced, the minimum, 13 per cent., being in Ohio. The distribution of disasters was quite singular and capricious; while Rhode Island gathered 25 per cent. more than last year, Connecticut harvested 74 per cent. less. The Atlantic slope reports a greatly diminished yield, though in some counties there was an abundance of good fruit. The Gulf States do better, nearly equaling their previous year's gathering. The Southern inland States, except Arkansas, are all below last year, West Virginia not gathering over 20 per cent. of her previous crop. North of the Ohio the case is still worse, the crops ranging from 13 per cent. in Ohio to 62 per cent. in Michigan. West of the Mississippi River the yield is larger, ranging from 36 per cent. in Kansas, where many trees had been destroyed by grasshoppers, to 89 in Minnesota. California gathered 70 per cent., and Oregon 93 per cent., of last year's crop. Drought injured the crop in some parts of the Pacific slope.

**PEARS.**—This crop did not suffer quite so severely as the apples, but it falls below last year in all the States except Florida, Texas, and Arkansas. It returned the smallest averages in West Virginia, 26 per cent.; in Ohio, 32 per cent.; and in Virginia, 36 per cent. The New England and Middle States and Maryland gathered at least three-fourths of last year's crop; South Carolina, about half; and the Gulf States,



about seven-eighths. The other States, both north and south of the Ohio River, exhibit the same destructive meteorological conditions, which so nearly destroyed the apple-crop. The States west of the Mississippi, except Kansas and Nebraska and on the Pacific slope, will average over three-fourths of last year's crop. In the neighborhood of Salt Lake, Utah, the codling-moth was destructive to this fruit as well as to apples.

MAINE.—*Piscataquis* : Few apples on the trees, and small in size. *York* : The frost of September 25 spoiled our grapes. *Waldo* : The lightest crop of apples for years.

NEW HAMPSHIRE.—Grapes destroyed by early frosts.

CONNECTICUT.—*New London* : Grapes injured by frost.

NEW YORK.—*Queens* : All kinds much less than last year, especially grapes and pears. *Washington* : Apples and pears more plentiful than was anticipated, but have not ripened well; grapes in many of the best yards are nearly a failure, becoming sour, instead of ripening naturally. *Steuben* : The grape-crop short, from dry and cold weather. *Wyoming* : Grapes did not ripen; pears, half crop and blighted.

NEW JERSEY.—*Warren* : Very short crop of apples, but good in quality; the crop of pears good in product and quality.

PENNSYLVANIA.—*Bedford* : Grapes poor in quality; did not ripen well. *Erie* : Not over one-tenth the fruit in the county there was last year. *Potter* : Nearly a full crop of apples. *Tioga* : A large crop of grapes, but they did not mature well; a small crop of apples of first-rate quality; a good crop of pears of fine quality.

MARYLAND.—*Dorchester* : Apples abundant. *Caroline* : Best crop of apples for years; pears dropped off before maturing. *Prince George* : Very few apples. *Baltimore* : Abundant fruit for home consumption; grapes a reliable crop of late years.

VIRGINIA.—*Pittsylvania* : Grapes promised better than ever before, but rotted before ripening. *Page* : Our fruit-crop almost an entire failure, owing to frosts in the spring. *Dinwiddie* : Late frosts injured the grapes and nearly destroyed all the apples and pears. *Chesterfield* : Large yield of pears and good in quality. *Washington* : Grapes rotted badly.

NORTH CAROLINA.—*Davie* : Grapes very good. The Concord and the Clintons stood the wet weather better than any other varieties. *Hertford* : The grape-crop very abundant. *Chowan* : Grapes short; frost in spring killed the buds, except Scuppernong, which are fair.

SOUTH CAROLINA.—*Clarendon* : Small varieties of grapes rotted badly; the Scuppernong the only kind that reached an average.

MISSISSIPPI.—*Pike* : Apples, pears, and grapes very fine.

LOUISIANA.—*Union* : The fruit-crop unusually large, and of superior quality.

TEXAS.—*Red River* : Apples and pears improving every year in quantity and quality.

ARKANSAS.—*Fulton* : Apples and grapes fine.

TENNESSEE.—*Monroe* : Grapes good; pears almost, and apples quite a failure. *Bradley* : Grapes abundant; sold at 5 cents. *Greene* : Grapes yielded largely, but rotted badly.

WEST VIRGINIA.—*Jefferson* : Heavy crop of grapes; apples and pears light. *Mercer* : Less fruit than for ten years.

KENTUCKY.—*Lewis* : Apples a failure, except on old seedling trees. *Meade* : The yield of apples much greater than anticipated in the early season. *Campbell* : The fruit-crop an absolute failure.

OHIO.—*Pickaway* : Apples and other fruit almost a complete failure. *Preble* : No apples, and grapes considerably affected with the rot. *Ross* : Except two or three varieties of grapes, all fruit a total failure. *Monroe* : Very little fruit; grapes almost a failure.

MICHIGAN.—*Kalamazoo* : Apples not over half a crop and not of first quality; grapes much injured by frost. *Allegan* : A large yield of grapes, but did not ripen well. *Lena-see* : The largest apple-crop ever known. *Hillsdale* : Double the apples expected, and the quality very fine. A fair yield of grapes, but seriously damaged by frost. *Jackson* : Grapes more than half frozen on the vines. *Livingston* : Apples cut short. *Leelenaw* : Grapes did not ripen well. *Newaygo* : All kinds of fruit unusually light except grapes.

ILLINOIS.—*Mercer* : Grapes did not ripen well. More apples and better than were anticipated. *Pike* : Apples scarce and high. *De Witt* : Apples almost a failure. Grapes in some vineyards matured nicely; as fine as I ever saw; in others, not half a mile distant, they began to rot when half grown and not a tithe ripened. I have never seen the like before. *Franklin* : The grape-crop nearly a total failure from rotting. The apples dropped from the trees and rotted badly. *McHenry* : Grapes promised well, but were overtaken by frost before maturing. *Montgomery* : A hail-storm destroyed many of the apples left by the spring frosts. Grapes were badly injured by the wet

weather. *Schuyler*: Never so near a total failure of apples since orchards commenced bearing. *Boone*: Few apples. *Morgan*: Almost no apples.

WISCONSIN.—*Brown*: At least two-thirds of the grape-crop did not ripen. *Clark*: Grapes fatally injured by the August frosts. *Jefferson*: Grapes a total failure from frosts. *Washington*: An abundant crop of grapes was spoiled by a hard freeze in September. *Iowa*: The best crop of grapes for many years spoiled by frost.

MINNESOTA.—*Isanti*: Apples and grapes damaged by frost in August.

IOWA.—*Marion*: Good crops of apples and grapes. *Decatur*: A good crop of fruit. *Harrison*: Grape-crop fine, and apples unusually fine.

MISSOURI.—*Perry*: Apples half a crop. Grapes all rotted. *Schuyler*: The grape-crop was rotted by the warm moist weather.

CALIFORNIA.—*Sonoma*: The grape-crop a full average, though 90 compared with last year. *Butler*: The fruit-crop almost a failure owing to the dry season. *Lake*: Grapes injured by the white fly.

UTAH.—*Washington*: Pears good; grapes extra; other fruit damaged by frost. *San Pete*: Grapes and apples much injured by hail. *Salt Lake*: Apples and early pears destroyed by the codling-moth. *Beaver*: Fruit entirely destroyed by frost in June.

## HAY.

In 1874, New England, except Maine, and the Middle States, reported a large crop, of good quality. Compared with last year's crop, Maine reports an increase of 10 per cent, but in the other States of that section, also in Virginia and West Virginia, there is an average falling off of about 13 per cent.; the principal cause being an early drought. In New England, as a whole, the good quality of 1874 is fully maintained; but in the other States throughout the whole section north of the thirty-sixth parallel, and east of the Mississippi, the quality was much damaged by the rains prevailing in the season of cutting and curing. In all that section, Michigan is the only State which returns an average quality equal to that of last year. West of the Ohio and south of Virginia, Georgia, 97, Alabama, 96, Louisiana, 98, California, 92, and Oregon, 99, are the only States returning a yield below last year's. In the following States, which report an extraordinary increase on last year's crop, the figures for 1874, as compared with the previous crop, are given first, as affording a better indication of the import of those for 1875: Mississippi, 100; 145; Texas, 113; 121; Arkansas, 74; 200; Tennessee, 75; 126; Illinois, 95 and 116; Kansas, 94 and 184; Nebraska, 81; 216. The entire crop, compared with that of 1874, is 3 per cent. greater in quantity.

MAINE.—*Piscataquis*: Not secured in good condition, owing to bad weather. We are learning that it pays to cut hay early. *Aroostook*: Abundant, but much injured in quality by rains in the cutting-season.

VERMONT.—*Caledonia*: Quality extra.

NEW YORK.—*Washington*: The crop materially injured by a large white grub. *Sullivan*: Suffered by drought; not much over half a crop.

NEW JERSEY.—Very light crop, and not gathered in good condition, owing to heavy rains in July.

PENNSYLVANIA.—*Monroe*: Very short, owing to drought. *Bedford*: A larger crop than last year, but much damaged by excessive rains. A good crop of aftermath was secured in good condition. *Montour*: Very light, nearly a failure on upland, owing to drought. *Potter*: A full crop, of excellent quality.

MARYLAND.—*Frederick*: Probably less than 40 per cent. of a crop. *Howard*: A great deal damaged by the protracted wet. *Baltimore*: Short crop of all kinds.

VIRGINIA.—*Carroll*: Suffered very much from wet weather during the haying season. *Powhatan*: Good, both cultivated and wild. *Spottsylvania*: Very short crop, but good in quality. *Floyd*: The quantity reduced by drought, and the quality greatly injured by wet weather. *Dinwiddie*: Late frosts and early drought cut short the quantity; the quality is good. *Wythe*: A much larger crop than last year, but the quality very bad; it being impossible to cure it, owing to the rains. *Chesterfield*: Short. *Highland*: good yield and quality. *Washington*: Very much injured by wet weather in harvest. *Franklin*: Much entirely lost in curing, and the remainder greatly injured.

NORTH CAROLINA.—Good crop. *Davie*: Could not be cut at the proper time, owing to wet weather. *Chowan*: Much damaged by wet weather.

ALABAMA.—*Montgomery*: Our hay, that promised nothing the 1st of August, is now turning out heavy and of excellent quality. *Lauderdale*: Never so great before; principally Hungarian and German millet. *Colbert*: A large quantity saved.

MISSISSIPPI.—*Jefferson*: Splendid.

TEXAS.—*Red River*: Abundant and fine crop. *Collin*: Second crop extra.

ARKANSAS.—*Arkansas*: A good crop; somewhat damaged by rains. *Fulton*: A good crop, but injured by rains.

TENNESSEE.—*Grundy*: Great quantities of wild hay have been saved. *Greene*: Much destroyed by floods and rains. *Putnam*: Extra crop; more saved than ever before. *Cheatham*: Better in quantity and quality than last year. *Rutherford*: Large crop of superior quality. *Wilson*: German and Missouri millet and Hungarian grass were sown in large quantities, and a very heavy yield of hay has been secured. *Robertson*: Good crop. The acreage of German millet and other annual grasses was largely increased.

WEST VIRGINIA.—*Putnam*: Spoiled by rains; no good hay. *Ritchie*: Damaged, at least 25 per cent., by floods. *Summers*: Greater yield than last year, but injured by rains. *Braxton*: Large product, but damaged by the rains. *Monongalia*: The smallest crop in twenty years. *Monroe*: Better than last year 25 per cent., though not quite average.

KENTUCKY.—*Nicholas*: Very light, and put up in a damaged condition. *Meade*: Product large, but very much injured by the rains.

OHIO.—*Pickaway*: The crop equal to last year's, but that was short; the quality the worst for years. *Morgan*: Much injured by wet. *Van Wert*: Badly damaged by wet. *Clark*: Large crop, but much damaged by rains. *Monroe*: Much damaged by the rains. *Noble*: Injured by floods. *Athens*: Greatly injured by the rains.

MICHIGAN.—*Delta*: A light crop. *Montcalm*: Very poor.

INDIANA.—*Vanderburgh*: Cut late and injured by rains both before and after cutting. *Decatur*: Was good, but damaged, and much of it lost by the rains. *Hamilton*: The quality very inferior. *Warrick*: Fine yield, but large per cent. damaged.

ILLINOIS.—*Piatt*: Prairie-grass was better than usual and a large amount was saved in excellent condition. There was also considerable Hungarian raised and well saved. *Clinton*: Never more nor better. Seed that was sown with wheat last fall, has produced, since the wheat was cut, from one to two tons per acre. *Macoupin*: A larger crop than usual, but saved in an inferior condition. *Saint Clair*: A very fine crop very poorly saved. *Effingham*: A much larger crop than usual, but of very poor quality. *Morgan*: Damaged by rains.

WISCONSIN.—*Dodge*: Good. *Walworth*: In unusual abundance, and of the best quality.

MINNESOTA.—The best in quantity and quality, both tame and wild. *Winona*: Seriously injured in the stack by excessive rains. *Pope*: Damaged by rains. *Steele*: Much injured in field and quality by rains.

IOWA.—*Story*: Damaged by overflows. *Hardin*: A heavy crop, much damaged in stack. *Harrison*: The floods destroyed great quantities on the bottoms. Some farmers lost 200 or 300 tons in the stack. *Madison*: Damaged by rains. *Emmett*: All wild, but never more abundant or better.

MISSOURI.—*Nodaway*: Prairie-hay never better. *Benton*: Magnificent. *Christian*: Much damaged by rains. *Vernon*: Prairie-hay seeded this year and the crop enormous. *Johnson*: No timothy or clover, but those who had prairie-meadows or sowed Hungarian grass or millet, reaped a bountiful harvest. *Perry*: Abundant in yield but poor in quality, owing to rains. *Morgan*: Badly damaged by rains. *Newton*: Heavy crop, but injured by rains. *De Kalb*: Cheaper than at any time for five years. *Howard*: Hungarian grass and millet are abundant, but timothy was destroyed by the worms. *Cape Girardeau*: Reduced by ravages of the army-worm. *Butler*: A good crop but damaged by rains.

KANSAS.—*Cherokee*: Very fine. *Cowley*: Large and fine. *Osage*: Exceeds any crop before raised. *Atchison*: Fifty per cent. more put up than usual. *Leavenworth*: In excess of any previous year, and of very good quality.

NEBRASKA.—*Cass*: Very much damaged by the rains. *Clay*: More than last year 25 per cent., and of better quality.

CALIFORNIA.—*Placer*: A full crop, of splendid quality.

## BUCKWHEAT.

Returns indicate that the entire product equals that of last year. Early frosts reduced the crop largely in Illinois, Wisconsin, and Minnesota, and slightly in the section east of Lake Erie. Except in Wisconsin, 45, the crop does not fall more than 1 per cent. below that of last year in any State in which it is extensively grown. Maine returns 116; Vermont and New York, 99; New Jersey, 100; Pennsylvania, 112;



Michigan, 132. These States grow considerably more than four-fifths of the entire crop. In the Missouri Valley the figures are very high, owing partly to the reduced yield last year. They are, compared with previous crops, for 1874 and 1875, respectively, in Missouri, 65 and 237; Kansas, 43 and 202; Nebraska, 50 and 544. This great increase in product is also owing in part to a largely increased area—20 per cent. in Missouri; 23 in Kansas, and 28 in Nebraska. In Virginia, West Virginia, Missouri, and Nebraska, the silver-hull variety, from seed from the Department, is reported as a decided success, being very prolific in yield; in Madison, Nebraska, "by count, one stalk yielded 3,340 grains, after some grains had been lost off in carrying it to the house." The product was 12 per cent. greater than last year in Michigan, Indiana, and Texas, and 18 per cent. in California.

CONNECTICUT.—*New London*: Injured by frost.

NEW YORK.—*Steuben*: Affected by frost. *Saratoga*: Early sown, very heavy; late sown, badly blasted.

PENNSYLVANIA.—*Monroe*: One farmer sowed 4 bushels on the 5th and 6th of July, and thrashed 331 bushels. *Sullivan*: Never better. *Butler*: Not such a crop in quantity and quality for the last twenty years; all housed in good condition. *Tioga*: Good yield and fine quality.

MARYLAND.—*Caroline*: Cut by the frost.

VIRGINIA.—*Spottsylvania*: A fine crop. *Highland*: The best crop for many years. The silver-hull, from the Department, takes the lead of all other varieties, being earlier, heavier, and more productive.

WEST VIRGINIA.—*Mercer*: Good; the silver-hull preferred.

OHIO.—*Perry*: Plenty, and of good quality.

MICHIGAN.—*Wexford*: Nearly ruined. *Ottawa*: Injured by frosts, early and late. *Emmett*: That sowed late an entire failure. *Lake*: Almost a total failure from frost. *Mason*: Almost all killed. *Muskegon*: Destroyed by frosts. *Montcalm*: A good crop.

INDIANA.—*Decatur*: A good crop. *Marshall*: Extra good.

WISCONSIN.—*Eau Claire*: The light crop owing to frost August 22. *Dodge*: Killed by frost in August. *Jefferson*: A total failure, owing to early frosts.

MINNESOTA.—*Redwood*: Has yielded far better than last year. *Isanti*: A very large percentage damaged by frost in August. *Mille Lac*: Entirely destroyed by frost in August.

IOWA.—*Hardin*: More extensively sown than usual, and yielding well. *Marion*: Very poor crop. *Harrison*: Increased acreage, and fine crop. *Howard*: A failure from frost.

MISSOURI.—*Cass*: The like of the crop was never raised in the county before; average, 15 bushels per acre. *De Kalb*: Raised more extensively than ever before. The silver-hull, from the Department, is a success, giving large returns.

KANSAS.—*Osage*: Exceeds any crop before raised.

NEBRASKA.—*Cass*: A great amount sown, in consequence of the destruction of wheat and corn by the grasshoppers. *Madison*: The silver-hull did very well.

## SORGHUM.

An extraordinary increase in this crop, over last year, is indicated in the Southern States and in the Missouri Valley. Georgia returns an increase of 40 per cent.; Alabama, 93; Mississippi, 83; Arkansas, 121; Tennessee, 59; Kentucky, 28; Missouri, 54; Kansas, 90; Nebraska, 56. Further north there is a general decrease, though Indiana, 116, and Michigan and North Carolina, 108, are exceptions. While Dearborn, Indiana, reports a very heavy increase in the product, Butler, Ohio, reports that the culture is decreasing every year, and Medina, that it has already reached the vanishing point. The report from Cowley, Kansas, states that at least one-third of a crop, very fine in quantity and quality, will not be worked up; the reason is not given, but apparently because the crop exceeds, by that much, the capacity of provided machinery. Our correspondent in Kane, Utah, reports that fields in that county have yielded as high as 200 gallons of sirup per acre; also,

that he raised, on 1½ acres, 250 gallons of excellent quality, weighing 11 pounds per gallon, and worth \$1 per gallon.

NORTH CAROLINA.—*Hertford*: Above an average crop, yielding well.

GEORGIA.—*Clayton*: Have made more than since the war. *Dooly*: Injured by dry weather.

ALABAMA.—*Calhoun*: The figures for sorghum (800) may seem unreasonable, but it is the first year it has been raised to much extent in this county. I know of three farmers in the same vicinity who have made, in the aggregate, over 3,000 gallons of good sirup; and nearly all the farmers have made their own supply. *Chambers*: The people have made more this year than heretofore. *Conecuh*: Yield 100 per cent, greater than reported in October. *Bullock*: Unusually large crop planted, and the yield improved by the favorable fall.

MISSISSIPPI.—*La Fayette*: The favorable weather of the past month has improved the quantity and quality in an unprecedented degree. *Choctaw*: Not less than 50,000 gallons of sorghum molasses made in the county this year.

TEXAS.—*Red River*: Good; raised to a considerable extent this year; none heretofore. *Upshur*: Twice as much made this year as in any former. *Rusk*: A good deal of sirup made and the culture on the increase.

ARKANSAS.—*Fulton*: Splendid crop, and quality of sirup choice.

TENNESSEE.—*Blount*: Good; more made than for several years. *Monroe*: A heavy crop, and the quality of sirup superior. *Greene*: Good. *Loudon*: Farmers are improving very much in raising sorghum and making sirup. *Rutherford*: An enormous crop. *Wilson*: Much above an average.

OHIO.—*Butler*: The culture growing less and less every year. *Medina*: We have ceased to grow sorghum.

INDIANA.—*Dearborn*: A very heavy increase in the product.

IOWA.—*Marion*: Very poor crop. *Calhoun*: Very poor yield. The stalks seemed to be destitute of the usual amount of sweetness.

MISSOURI.—*Johnson*: More abundant than anticipated, and good molasses is being manufactured.

KANSAS.—*Cowley*: Very fine in yield and quality, but at least one-third of the crop will not be worked up. *Osage*: Exceeds any crop before raised.

NEBRASKA.—*Antelope*: Excellent in quality; average yield, 100 gallons of sirup per acre.

## HOPS.

NEW YORK.—*Schoharie*: More than an average crop, good in quality; selling at 10 cents.

WISCONSIN.—*Juneau*: The least profitable of any crop; average price not over 8 cents. *Clark*: Fatally injured by the August frost.

IOWA.—*Jones*: About 25 per cent. of an average crop. *Fremont*: A large crop.

CALIFORNIA.—*Contra Costa*: A yard of 10 acres is the first planting in the county. The plants grew well under unfavorable conditions, and the product is half a crop of choice quality. *Mendocino*: Becoming an important crop; the acreage 50 per cent. increase on last year, and a fair yield.

## FLAX.

OHIO.—*Van Wert*: A great crop, but damaged by rain.

ILLINOIS.—*Piatt*: A larger area sown than ever before, but, owing to the excessive rains, little of the crop was harvested, and that in bad condition. *McLean*: The crop for seed was a good deal injured by the long-continued rains. *Boone*: Unusually large acreage, and yield as high as 17 bushels per acre.

MINNESOTA.—*Pope*: Did not yield nor fill well.

IOWA.—*Hardin*: Sown to a greater extent than ever before, but damaged by wet weather.

MISSOURI.—*De Kalb*: A good crop; never raised here before.

KANSAS.—*Bourbon*: Badly damaged by rain, after being harvested.

NEBRASKA.—*Clay*: Did not yield as well as last year, but the acreage was much larger and the product is fully 500 per cent. greater.

Table showing the condition of the crops, &amp;c., on the 1st day of November, 1875.

States.	CORN.		POTATOES, ( <i>Solanum tuberosum</i> .)		POTATOES, ( <i>Idiopsis edulis</i> , sweet.)		TOBACCO.		HAY.		BEANS.	PEASE.
	Product com- pared with last year.	Average quality last year.	Product com- pared with last year.	Average quality last year.	Product com- pared with last year.	Average quality last year.	Product com- pared with last year.	Average quality last year.	Product com- pared with last year.	Average quality last year.	Product com- pared with last year.	Product com- pared with last year.
Maine.....	106	96	80	92	110	103	110	103	110	103	101	98
New Hampshire.....	98	102	107	103	90	100	95	103	95	103	101	100
Vermont.....	97	92	107	103	109	110	109	110	95	103	97	98
Massachusetts.....	132	107	115	116	109	110	109	110	83	103	100	100
Rhode Island.....	85	88	113	113	101	110	101	110	75	97	103	100
Connecticut.....	106	97	107	99	103	95	103	95	79	107	109	100
New York.....	96	83	107	99	103	99	98	95	93	99	99	96
Pennsylvania.....	121	101	99	98	103	99	103	95	75	94	99	95
Delaware.....	110	90	112	102	99	91	117	103	94	96	97	97
Maryland.....	115	100	93	90	103	95	110	106	87	90	100	100
Virginia.....	121	105	86	94	96	100	110	106	90	94	104	104
North Carolina.....	118	101	108	103	96	97	128	103	95	96	103	104
South Carolina.....	104	99	100	98	91	94	132	100	104	100	105	101
Georgia.....	91	91	95	96	79	94	100	101	101	101	100	82
Florida.....	92	93	90	96	87	93	100	101	97	99	97	89
Alabama.....	90	93	96	90	87	93	150	110	96	101	112	100
Mississippi.....	122	106	91	98	92	94	105	112	145	111	144	105
Louisiana.....	127	115	110	108	126	114	140	133	145	111	144	145
Texas.....	114	105	104	105	123	106	102	100	98	95	100	107
Arkansas.....	110	102	109	104	100	100	102	100	131	103	93	101
Tennessee.....	200	154	144	132	119	105	187	116	200	111	118	154
West Virginia.....	195	133	119	108	105	102	633	116	136	107	112	134
Kentucky.....	119	94	129	104	103	96	131	102	101	83	107	101
Ohio.....	124	107	180	115	89	91	268	106	105	91	108	107
Indiana.....	85	102	125	102	92	92	130	88	103	78	94	100
Michigan.....	106	67	159	108	107	102	113	75	105	100	99	103
Illinois.....	90	81	110	110	90	90	134	91	107	95	95	94
Wisconsin.....	130	104	207	131	90	90	250	79	116	86	99	92
Minnesota.....	62	57	128	104	103	95	95	101	110	97	85	104
Iowa.....	92	89	117	105	102	95	95	101	105	101	104	91
Missouri.....	101	86	171	108	103	95	95	101	112	98	104	101
Kansas.....	194	140	175	123	121	104	948	104	112	103	137	117
Nebraska.....	425	200	923	135	138	117	130	113	144	124	157	133
Nevada.....	550	175	400	159	119	102	217	100	216	114	181	122
California.....	103	98	95	95	100	96	96	82	92	98	85	85
Oregon.....	102	98	96	96	96	96	96	82	97	101	100	100



*Condition of the crops, &c., on the 1st day of November, 1875—Continued.*

States.	BUCKWHEAT. Product com- pared with last year.	FLAX. Product com- pared with last year.	COTTON.		SORGHUM. Product com- pared with last year.	SUGARCANE, (not sorghum.) Indicated pro- duct compared with last year.	GRAPES. Product com- pared with an average crop.	APPLES. Product com- pared with an average crop.	PEARS. Product com- pared with an average crop.
			Indicated pro- duct compared with last year.	Indicated pro- duct, (lint) per acre, in pounds.					
Maine.....	116						70	43	80
New Hampshire.....	100								96
Vermont.....	99								92
Massachusetts.....	75								91
Rhode Island.....									95
Connecticut.....							103	125	83
New York.....	101				100		75	36	83
New Jersey.....	99	100					79	65	84
Pennsylvania.....	100						89	57	85
Delaware.....	112	100					91	45	64
Maryland.....	105				80		107	85	85
Virginia.....	111	101	96	190	99		100	79	90
North Carolina.....	97	93	91	156	108		86	43	36
South Carolina.....	100		76	140	88		98	31	41
Georgia.....	98		74	126	110		88	41	51
Florida.....			90	115		77	97	76	85
Alabama.....			102	158	193	111	99	100	79
Mississippi.....			111	212	183	109	103	101	99
Louisiana.....			100	239	115	109	87	92	92
Texas.....	112		114	269	117	94	105	111	108
Arkansas.....	92		135	239	224		112	103	106
Tennessee.....	98	100	116	142	137		90	70	65
West Virginia.....	98	93			103		81	20	36
Kentucky.....	93	101	107		138		65	41	40
Ohio.....	89				97		13	32	32
Michigan.....	132	105			108		71	62	58
Indiana.....	112	87			116		74	30	37
Illinois.....	83	124			93		89	45	54
Wisconsin.....	45	95			62		71	58	71
Minnesota.....	83				84		87	89	
Iowa.....	109	106			92		94	83	88
Missouri.....	237	166	102	186	154		77	77	78
Kansas.....	206	110			190		71	36	38
Nebraska.....	544	119			156		79	75	50
California.....	118	100					97	70	73
Oregon.....	100	86					120	93	89

## EXTRACTS FROM CORRESPONDENCE.

**SMALL POTATOES FOR SEED.**—*Elizabeth City, Virginia*: I have made an experiment the past season, the result of which, I think, explodes the theory that small potatoes for seed will only return a *small crop of small potatoes*. Cut seed planted under our burning July sun is sure to rot, while the use of large whole potatoes involves considerable expense. A square of ground containing 2,500 square feet, from which a crop of cauliflower had recently been taken, was prepared and planted July 12, with white Peachblow culls. Few of them, if any, were larger than pigeon's eggs. As is always the case here, even with the best seed, some failed to grow, say 5 per cent. The plants began to show themselves early in August, at which time heavy rains set in and so continually saturated the soil that no working was possible until September 5. Then a plow was run through the rows and a dressing out with the hoe was given them. Soon after the vines so covered the ground that further cultivation was impossible. The patch was harvested October 30. The product was a fraction over 20 bushels of the largest and finest potatoes ever grown in this section. With the exception of  $2\frac{1}{2}$  pecks of small potatoes, about the size of the seed sown, all are large. Fully one-half average one pound each in weight, and the remainder are of full marketable size and fine appearance. This yield is at the rate of 350 bushels per acre. A heavy coat of barn-yard manure was applied to the previous crop, but no additional fertilizer was used.

**MAST.**—*West Virginia, Braxton*: The corn-crop is supplemented at least one-third by the very large acorn-crop. It is large in quantity and very good in quality. Hogs are getting very fat in the woods, and the crop will probably feed all the hogs left in the county, after butchering, all winter.

*Indiana, Hamilton*: A fair crop of mast.

**DROUGHT.**—*Kansas, Wabaunsee*: There is a great drought in this section; no rain to amount to anything since July. Cattle are being driven five and six miles to water. If winter should set in without rain, our condition would be alarming, for over one-half of our population would be entirely without water.

**HOGS.**—*West Virginia, Jefferson*: About 100 hogs have died of cholera within the past six weeks; about a dozen have been stolen from the pens during the past month, and 700 or 800 have been driven from the county, mostly at 7 cents per pound, gross. Nearly all went to the Hannisville distillery near Martinsburgh, Berkeley County.

*Ohio, Montgomery*: There has been a serious loss of hogs by cholera. Some farmers have lost all their stock. The usual remedies have failed to save them.

*Indiana, Bartholomew*: The cholera has played sad havoc with our hog-crop this season. It will not exceed half that of previous years. *Fayette*: Hog-cholera has been prevailing, and is still, to an alarming extent. Many farmers have lost \$1,000 worth of hogs. Hogs of all ages have died. The remedies heretofore thought to be good have failed. *Henderson*: Hogs have all died, so that there will not be enough in the county for our own meat. *Johnson*: Hogs are dying of cholera and other diseases to an alarming extent. It looks as if the farmer would have to turn his attention to some other kind of stock. *Lawrence*: Hogs are dying with the cholera at a fearful rate. *Pike*: Our hogs have been



and are dying with cholera, in consequence of which the crop will be short.

*Illinois, Fulton* : Hog-cholera is prevailing to an alarming extent. *Clinton* : About one-third of our hogs have died of cholera. *Pike* : Hog-cholera bad. *Vermillion* : A great deal of hog-cholera in different parts of the county. *Hancock* : Hog-diseases more than usually present. *Scott* : A great many hogs have died with cholera.

*Wisconsin, Richland* : Fat hogs have been mostly bought up and driven out of the county.

*Iowa, Marion* : Hogs are extensively diseased. A very large number have died within the last three months. Many farmers have barely enough left for domestic use. The disease is called hog-cholera. I think it a disease of the throat and lungs. *Washington* : A few hogs have died with cholera.

FINE MERINO WOOL FOR A DIME.—*Nebraska, Saunders* : I send herewith a sample of Nebraska wool from sheep unhoused and unwashed ; such as can be grown in any portion of the State at a cost of 10 cents per pound, and in the western portion for less. Will Congress continue the present wool-tariff until this great national industry becomes fully established throughout the West? Millions are involved in the solution of the question.

RESULT OF SEED-DISTRIBUTION.—*Wisconsin, Outagamie* : There will be hundreds of acres of Fultz wheat sown in this county next year. There were over 700 bushels raised this season, all from the 4 quarts sent me by the Department four years ago. The Schonen oats are now sown by nearly all the best farmers in the county. They average at least 10 bushels per acre more than any other variety. So it is seen that the introduction of new seeds is doing a great amount of good, especially for field-crops. *Clark* : The Fultz wheat furnished by the Department is growing into general favor. It makes about two weeks earlier than the other varieties. The different varieties of oats and barley furnished by the Department seem well adapted to our soil and climate.

*Kansas, Woodson* : At our district fair (including four counties, and open to the world,) the Westchester corn from the Department bore away the premium ; also the silver-hull buckwheat took the first premium ; it yielded 45 bushels per acre ; also the red (Etampes) pumpkin. It is large, rich, sweet, and the grain solid and fine as that of a squash. *Allen* : From seed sent out by the Department were produced a mammoth squash weighing 115 pounds, and a total on one vine of 1,096 pounds ; also potatoes weighing 2 pounds each ; beets, 9 pounds ; turnips, 14 pounds ; cabbage, 36 pounds.

*Nebraska, Thayer* : The winter-rye sent from the Department, in hardness and yield, beats anything in these parts.

*Virginia, Grayson* : From seed sent to me by the Department last spring, I have raised large bright yellow pumpkins, weighing 112 and 117 pounds apiece.

*North Carolina, Forsyth* : Mr. A. Fagle, from 1 bushel of Clawson wheat raised 41 bushels.

*Arkansas, Saint Francis* : The Westchester yellow-corn sent from the Department last spring is a grand success ; I raised some that measured 13 inches to the ear. It is some three or four weeks earlier than our ordinary corn, and yields as much per acre as the very best. *Benton* : My Willis corn yielded 40 bushels per acre ; common white, 55 ; Pennsylvania yellow, 65.

*Tennessee, Macon* : The early yellow corn forwarded to me by the Department is the largest field-corn within my knowledge.

**OUTSTRIP THE BEETLE.**—*New York, Montgomery* : In many of the potato-fields beetles have been found in the hill this fall, ready for the next year's crop. In view of this would it not be well for the farmers to plant the early kinds as early as possible? They might thus avoid destruction by the beetles.

*Maryland, Cecil* : The early planted yielded tolerably well where care was taken to destroy the bugs; the late planted and late varieties were more seriously injured. The true plan is to plant early and early varieties; they then ripen before the later swarms of beetles make their appearance.

**MINOR CROPS.**—*Pennsylvania, Bedford* : Broom-corn is being introduced and promises to be a profitable crop. The yield is good. *Beaver* : The farmers have grown a larger breadth of beets and turnips than usual, and have succeeded well.

*Maine, Cumberland* : The culture of cranberries in this county is increasing, but the yield this season is small.

*Florida, Manatee* : Oranges are in fine shipping condition. *Putnam* : Oranges in product are 125; in soundness for shipping, 150. Bananas, compared with last year, are 150 in product and 125 in quality.

*Ohio, Medina* : Onions are a drug in the market at 40 to 45 cents.

*Wisconsin, Walworth* : All root-crops have done well.

*Iowa, Johnson* : Timothy for seed is a staple crop in this county. Five to six bushels per acre are generally harvested and the hay is good for feed after thrashing. It pays as well as any other crop. *Scott* : Onions are raised very extensively in the county, and this year have been one of the most profitable crops, where suitable land could be had. The yield is from 200 to 450 bushels per acre.

*Missouri, Cass* : Over 20,000 bushels of castor-beans have been delivered already, and there are at least 5,000 more to be delivered. *Saint Clair* : Castor-beans have been a profitable crop this year. *Vernon* : A large acreage and good yield of castor-beans, averaging 15 bushels per acre.

*Kansas, Mitchell* : An unusual acreage of turnips has been grown. All vegetables are of an enormous size: beets, 12 inches long and 8 inches in diameter; pumpkins, weighing one hundred pounds; corn, 17 feet high, with two and three good ears on a stalk; Peerless potatoes, 400 bushels per acre. Tree-growth is also remarkable: cottonwoods grown from last year's seedlings have made 7 feet; seedling apples, 3 feet 8 inches; hedge from seed, about the same.

**LARGE YIELD OF WHEAT.**—*Pennsylvania, Lancaster* : I raised 600 bushels of wheat on 32 acres, (18 $\frac{3}{4}$  bushels per acre,) and this is a fair average of the county.

**DEPARTMENT REPORTS.**—*Arkansas, Prairie* : The Department of Agriculture should be so enlarged as to put a copy of the report in the hands of every farmer on payment of the cost of publication. I have very many more applications than reports to distribute, and I loan my own copies until they are almost worn out.

**GRASSHOPPERS.**—*Texas, Gillespie* : The grasshoppers arrived two weeks since and are depositing their eggs. *Uvalde* : Grasshoppers appeared here from the north in great numbers on the 25th of September. They seem southward-bound though they are checked up by a heavy south wind. Coming to the ground, they immediately commence feeding on



anything green, though they prefer beans, cabbage, and other soft vegetable varieties. For the last few days they have been very busy in depositing eggs in the ground. They prefer sandy loam for that purpose. In places, the earth is literally filled with eggs to the depth of one inch. *Bandera*: We have had myriads of grasshoppers for a month. They made their appearance two weeks earlier than formerly.

*Missouri, Jefferson*: The meadows are literally covered with small red grasshoppers. *Franklin*: Grasshoppers are damaging wheat in some places. *Moniteau*: The destructive grasshopper, *Colopterus spretus*, is scattered in small numbers all over our county, and great fears are entertained that they are depositing eggs.

*Utah, Box Elder*: The grasshoppers have come from the north in clouds and are depositing their eggs in various parts of the county.

**WHEAT-PLANTING.**—*Pennsylvania, Beaver*: The wheat sown this fall is not making the progress in growth it should. The weather of September was unfavorable. *Indiana*: Prospect that a greater area of small grain will be sown this fall than ever before. *Elk*: A very great breadth sown.

*Virginia*.—*Spottsylvania*: Sowing has commenced, and the ground is in fine condition. *Caroline*: The ground is in excellent condition. *Page*: Seeding is progressing finely.

*Texas*.—*Coryell*: A larger acreage than ever before will be planted. *Dallas*: The acreage will be increased 25 per cent.

*Arkansas*.—*Arkansas*: Many have sown, and the plant looks beautiful.

*Tennessee*.—*Giles*: A large acreage will be sown. *Loudoun*: Being planted in better condition than usual. *Hancock*: The weather is very favorable, and a larger acreage than usual is being put in. *Henry*: September was so dry, that no stubble-land could be plowed. This will render wheat-sowing universally late, and much will be sown in bad order.

*West Virginia*.—*Marion*: The ground is in fine order, and more than average acreage is being sown. *Wood*: About the usual amount has been, and some more will be, sown.

*Ohio*.—*Franklin*: It has been a very hard time for farmers to put in their wheat, and the usual quantity is not yet in. *Montgomery*: The prospect for wheat is moderate; the dry weather, since the floods, has baked the ground badly.

*Indiana*.—*Ripley*: Less than usual will be sown. The want of good seed and very dry weather make it very difficult to seed. *Elkhart*: Wheat has been sown on good moist soil, has germinated well, and has a good start. *Brown*: Wheat is not coming up well. *Marion*: The ground is very dry and hard, which renders seeding difficult, and leaves the grain sown in bad condition. *Gibson*: Seeding progresses finely.

*Illinois*.—*Monroe*: Stubble-land is so dry that farmers dislike to sow. In many cases they are leaving the rolled fields to wait for showers. *Scott*: Less has been sown than for several years. *Marshall*: But little wheat sown this fall. *Massac*: It is too dry for breaking up land for wheat.

*Missouri*.—*Jefferson*: Owing to the dry weather no wheat has been sown yet. *Boone*: There will not be more than two-thirds of an average crop sown. The ground is too hard to plow. *Camden*: Owing to dry weather very little has been sown, and the indications are that there will be a falling off in area of 25 per cent. *Nodaway*: The new-sown wheat is 110. *Crawford*: Very dry, and but little has yet been sown; not over one-third of last year's area will be sown. *Perry*: It is



too dry to prepare for seeding. We have not yet begun, when we ought to be nearly done. *Moniteau* : No rain since the last of July, and very little sown. *Franklin* : No rain for six weeks. The ground is so hard that farmers cannot plow; 20 per cent. less than average will be sown, and that late. *Jasper* : No rain for two months, and wheat-sowing nearly suspended. *Putnam* : Late rains have made the ground in good condition, and a large area is being plowed for fall crops. *Pettis* : The ground is too hard to break up, owing to the extremely dry weather, and there will not be nearly last year's amount sown.

*Kansas*.—*Woodson* : The area will be double that of previous years. *Bourbon* : Dry weather makes it bad for sowing wheat. *Jackson* : More sown than in any previous fall. *Cloud* : The seeding is all done. *Labette* : Chinchies have injured the wheat after it came up, by killing some. *Lyon* : Dry; the wheat not growing, and much of it not up. The prospect for a crop next year is growing less every day, but that which was drilled in early is growing and looks well. *Cowley* : A full crop is being put in. *Shawnee* : A large acreage sown.

*Pennsylvania*.—*Bureau* : An increased breadth sown, but the wheat has not grown as it should. *Lancaster* : Thickly and well set, and looks very fine. *Columbia* : Planted in good condition and looks very fine.

*Maryland*.—*Harford* : A greater breadth being put in than usual. At least three-fourths of the farmers prefer drilling. The fine weather causes the crop to look well. *Queen Anne* : An unusual breadth seeded. The almost entire failure of the oat-crop for several years past, has induced the farmers to put nearly all their corn-land into wheat. This has been seeded rather late, but fertilizers have been used freely, and abundant rains have put the crop in fine growing condition. The Fultz wheat has grown in public favor rapidly, and all who could obtain seed have seeded largely with it.

*Virginia*.—*Caroline* : The weather has been favorable for seeding. *Spotsylvania* : A fine fall for seeding wheat. A greater breadth than usual sown, and looks well. *King George* : Farmers have generally finished sowing. The wheat comes up well. *Middlesex* : The weather is remarkably pleasant and fine, and efforts are being made to seed heavy crops of wheat. *Frederick* : The wheat sown from the 20th of September to the 1st of October was never exceeded in promising condition.

*North Carolina*.—*Nash* : More seeded than usual. *Caswell* : Fall remarkably favorable for seeding, and a full average sown.

*Georgia*.—*Harris* : The farmers have planted largely. *Troup* : Will be more sown this year than last. *Barton* : Early-sown wheat is looking well. *Carroll* : Planters will sow largely; more than usual. *Douglas* : The farmers are sowing a great deal of wheat. *Jefferson* : The ground is dry as an ash-heap; in condition for nothing but sowing wheat, oats, &c. My experience is that the cereals all do better sown in dry weather. More small grain will be sown this fall than for a number of years.

*Alabama*.—*De Kalb* : Preparations are being made to sow a wide area of wheat.

*Texas*.—*Dallas* : Planters trying to sow. The seeding will be much retarded for want of rain. *Cooke* : The ground so dry and hard that wheat-sowing is suspended. *Uvalde* : Wheat-sowing deferred up to date, waiting for the disappearance of the grasshoppers. *Bastrop* : Will be a greater breadth sown than last year. *Hunt* : Too dry to sow wheat.

*Arkansas*.—*Baxter* : So dry that farmers have not sown any wheat, and cannot till it rains. *Boone* : So dry that no wheat has been sown

yet. *Prairie*: The best season ever known for sowing grain. *Izard*: No rain since August, which has greatly retarded the sowing of wheat and rye. *Marion*: The extremely dry fall unfavorable to sowing wheat.

*Tennessee*.—*Knox*: The ground better prepared than heretofore; better seed selected, and more being sown. The past year demonstrated clearly the marked value of the drill and fertilizers. *Fayette*: The acreage is being increased considerably this fall. *Montgomery*: Grasshoppers are eating the early-sown wheat, which injures it very much. Farmers unusually backward in putting in wheat; dry weather. *Giles*: A large acreage being seeded.

*West Virginia*.—*Marion*: Larger acreage than usual sown; has come up, and looks remarkably well. *Wood*: Looks finely.

*Kentucky*.—*Hardin*: Looks badly, on account of the dry weather; grasshoppers have eaten a good deal.

*Ohio*.—*Miami*: Wheat-fields are looking green and in the best condition. *Vinton*: September and October dry. The ground is hard; wheat backward and looks bad. *Montgomery*: The seeding has been later than usual, owing to the bad condition in which the summer-rains left the ground. It will require a favorable November to make the growth large enough to stand the winter. *Clark*: Much ground has been seeded, and looks well. *Mercer*: Making a splendid start; never looked better. *Crawford*: Looking well. *Fairfield*: Growing wheat rather backward. *Harrison*: Starting well.

*Michigan*.—*Washtenaw*: Looking well. *Charlevoix*: October was too cold and wet for late-sown winter-wheat.

*Indiana*.—*Grant*: Early-sown wheat looks well. *Madison*: Young wheat looks rather poor, having no rains and no warm weather. *Posey*: Our farmers are sowing very large crops, using the most approved plows and drills. *Dubois*: A large breadth is sown, notwithstanding the weather was very dry in breaking-time. A large portion of it is drilled. *Lawrence*: An average acreage sown, which looks exceedingly well. *Pike*: A large acreage sown and looks well.

*Illinois*.—*Pike*: The weather is dry and the wheat small. *Crawford*: A dry fall and the prospect for a wheat-crop next year very poor.

*Wisconsin*.—*Clark*: The area of winter-wheat will be much larger than last year. *Crawford*: The prospect is poor, on account of late sowing, wet, and cold. *Richland*: Less sown than usual.

*Missouri*.—*Camden*: Indications that not one-half as much will be sown as last year. *Franklin*: Continued drought has caused farmers to be very late in sowing. Grasshoppers are damaging wheat in some places. *Moniteau*: Not one-third of the usual amount sown. No rain since July 31. *Benton*: The seeding this fall presents a fine appearance. *Saint Francis*: Very little sown owing to dry weather, and what has been sown and come up is being destroyed by the Hessian fly. *Maries*: None of any consequence sown; set in dry the middle of August, and no rain yet. *Cape Girardeau*: The fall too dry for the wheat-crop; many farmers still sowing. *Clay*: A drought has prevailed for two months, very trying to the small grain seeded, but a rain last night will make all right.

*Kansas*.—*Jefferson*: Looking well, though the weather is almost too dry. *Clay*: Never looked better. *Lyon*: The dry weather hard on wheat; much of that sown has not sprouted. *Marion*: Grows very slowly; very dry since August 1. *Leavenworth*: Does not grow well for want of rain.



*California.*—*Stanislaus* : Farmers have planted two-thirds of their grain, and a fine rain gives them a good prospect.

*Utah.*—*Box Elder* : As it has been proved that fall-wheat will grow faster than spring-wheat, and be out of danger of the grasshoppers before they become developed for work, the farmers are striving to put in much this fall, but the process is difficult, as we have had no rain for a long time.

AGRICULTURAL VICISSITUDES.—*Maryland.*—*Howard* : Our people are advancing rapidly. We are putting up many new houses and other barn-buildings, and are materially improving our farming implements and processes. The politicians are beginning to act with more honor and patriotism, and with their help we shall have an agricultural millennium in Howard County.

*North Carolina.*—*Beaufort* : Until this year this county has imported large quantities of hay from the north. This year it has imported none, and the quantity of long forage, mostly fodder and sheaf-oats, now on hand, is more than sufficient to supply all demands until the next crop comes in. *Duplin* : A larger breadth of wheat will be sown in this county than ever before, and our farmers are generally returning to the system of raising their own supplies of every kind. If the low price of cotton continues, this county will sell pork and corn, instead of buying, within two years. Pork at \$8 per hundred, the present price here, is a much better business than cotton at \$12 per hundred.

*South Carolina.*—*Barwell* : With short crops and short prices we are to have a hard time, but it may be beneficial in driving our farmers to the production of what they now import, and at less cost. *Marion* : The outlook for the farmers is gloomy ; a short cotton-crop and a low price for the staple, while 35 per cent. of the hogs have died of cholera. *Georgetown* : Great mortality among hogs and poultry throughout this county during the past summer. The extent of the loss among hogs could not be ascertained while they were pasturing in swamps and woods, but now that they are looked for to put in potato-fields, &c., they cannot be found. In many cases from  $\frac{1}{4}$  to  $\frac{3}{5}$  of the number are missing.

*Georgia.*—*Harris* : The farmers have lost largely this season, and much suffering is anticipated another year ; but they have planted largely in wheat, rye, oats, and barley, and the prospect is good. *Clayton* : Our prospect is better than it has been since the war. We have planted more corn, and it has been better cultivated ; we have also made better crops of wheat, and will fatten more meat. We shall be nearer self-sustaining than usual, though the price of cotton is low, and I suppose will be, until our people learn not to plant so much, to the neglect of other crops which we ought to raise. *Upson* : Cotton is selling below the cost of production. This will leave the mass of planters and farmers in debt, with little or no hope of extricating themselves ; all the result of the blind policy of planting cotton to the exclusion of home-supplies. *Mitchell* : Cattle and sheep are healthy and in fine condition, but only a few hogs are left by the cholera. The short corn-crop will necessitate the buying of both corn and meat by our planters, very few of whom will be able to pay cash, owing to the short cotton-crop and the unremunerative price. Hence, they must pay big rates of interest for acceptance by the commission-men. The outlook is not in the least encouraging.

*Alabama.*—*Greene* : The farmers are in a fair way to prosper. We will import no corn and less meat than usual. The cotton-crop, though the price is low, will almost pay the county out of debt. The freedmen have more to show for their labor than any year since 1865. *Henry* : Our



people are fast awakening to the importance of raising all our supplies of every kind as nearly as possible—corn, small grains, bacon, and beef—and not devote so much land, time, and labor to cotton-planting, to our own injury. *Marengo*: A favorable change in our mode of planting is apparent this season. Cotton and corn are not the only products raised; oats, field-peas, sorghum, and sugar-cane are attaining the importance of crops. A wide-spread interest, also, is shown in improved cattle, sheep, and hogs. We can raise almost everything we need to feed and clothe ourselves, while we are blessed with a climate healthful and delightful. This portion of Alabama cannot be surpassed in the world as a farming country. *Russell*: More grain, especially rust-proof oats, will be sown this fall than ever before. The low price of cotton has forced the majority of farmers to change their smoke-houses and corn-cribs from the West to nearer home. The general topic is, more grain and less cotton. The bulk of the latter has already been gathered and sold; yet times are tight and tighter, and meat is scarce and scarcer. Hundreds of families, both white and black, have not had a pound in a week—some, in months; rabbits and opossums are all the meat they get.

*Mississippi*.—*Lowndes*: An abundant supply of corn has been housed, and in many places a surplus. There is a great demand for hogs and stock of all kinds to breed from; indications are hopeful. There is a general determination to diversify products, plant less cotton, and become self-sustaining. Cotton is below the cost of production, and necessity will force the planter to raise home-supplies. *Choctaw*: The farm-stock numbers about 30,000. There appears to be a great improvement in every branch of agriculture; also in procuring new and improved farm-implements, in reducing expenses, and bestowing better preparation and cultivation on a decreased acreage. *Kemper*: There is a greater disposition to diversify crops. More small grain is being sown, particularly wheat.

*Texas*.—*Falls*: It is an unmistakable fact that cotton is ruining us. Our people *must* try mixed husbandry, or all go into bankruptcy. *Harison*: There is a disposition here to sow grain, and to plant less cotton and more corn. Many farmers have already sown wheat, oats, barley, rye, &c., for pasture next spring. This is a move in the right direction, for almost anything will beat cotton, as the price now is.

*Arkansas*.—*Prairie*: The drought of last year has been of great benefit to our State in turning the attention of farmers to other crops than cotton and corn. Nearly all our farmers will be out of debt with the proceeds of this year's crops. Quite a number of our farmers have bought steam-power for gins, and several new steam gins and mills have been built. *Saint Francis*: Farmers are intending to abandon cotton and go into the production of small grains, in order to avoid bankruptcy. *Sebastian*: Our success with wheat, oats, and barley has very much encouraged us to go ahead with further experiments. There will be less cotton and corn and more small grain planted in 1876 than ever before.

*Ohio*.—*Medina*: We have ceased to grow sorghum; I hardly know why. The extent in the western reserve counties in 1873 was as follows: Ashtabula, 9 acres; Lake, 1; Medina,  $\frac{1}{2}$ ; Portage,  $\frac{5}{8}$ ; Mahoning, 7; Geauga, Cayuga, and Lorain, none. According to the State statistician, we have decreased from 4,696,089 gallons of sirup in 1866 to 692,314 in 1873. The southern and some of the new western counties continue to grow it in considerable quantities.

*Michigan*.—*Sheboygan*: This county is new, but is being rapidly settled

with thrifty and active farmers. Some three hundred families have moved in within the past year.

*Indiana.—Posey:* The great flood along the Wabash Valley and tributaries swept away fully one-half of our corn-crop. But the farmers have gone to work, replaced the fences, cleared out their fields, and say they will raise the next season, the Wabash permitting, the largest corn-crop ever grown. They are sowing very large crops of winter-wheat, and using the most approved plows, drills, and other modern labor-saving machines.

*Illinois.—Livingston:* At this season last year a great scarcity of all grains existed; now we have plenty, and to spare. What we have to buy is low; what we have to sell brings a fair price. This is about as near the millennium as the average farmer expects to get. *White:* The outlook before us for the coming winter is dark. But all our stock that we could spare, except horses and mules, has been sold off and shipped to the more fortunate localities, from whence we will ship corn for our remaining stock.

*Wisconsin.—Jureau:* The hog-crop will pay better than any other farm-production in this county; price 6 to 7 cents, live weight. Hops are the least profitable of any crop; the average price in this market is about 8 cents, which is not more than half the cost of producing. *Clark:* The whole season has been very uncomfortable and unprofitable. Although a larger area was planted and sown, the yield has been far below the average. Still, the farmers are not at all discouraged. They are making preparations for a much larger planting next spring. The area of winter-wheat will be much larger. *Crawford:* Times are good for farmers out of debt, though hard for those having demands to meet. Wheat is worth \$1 per bushel; corn, 50 cents; barley, 75 cents; oats, more than a full crop, 25 cents; potatoes, a big crop, 25 cents; cattle, \$2 to \$3, gross; hogs, \$6.50 to \$7, gross; sheep, gross, \$2.50 to \$3. *Shawano:* This is a new county, mostly settled by Germans. Among its products in 1875 were about fifty tons of maple-sugar and about one thousand bushels of blueberries marketed.

*Minnesota.—Nobles:* We have produced the past season the best crops ever raised in the county, both in quantity and quality. *Martin:* Cannot report in comparison with last year, as we produced nothing of any account, owing to destruction by grasshoppers. This year all kinds of crops raised here are generally good. Broom-corn, a specialty with some of our English farmers, was of first quality, but suffered much for want of help to save it. Help could not be secured. Wheat averaged 20 to 22 bushels per acre. It was but little damaged, about half being No. 1. *Steele:* The season has been a good one for farmers. All kinds of grain are turning out a larger yield, and less injured by the August rains than expected. Dairy products have yielded well, and bear remunerative prices. The end of the season finds the farmers in better condition than for three or four years.

*Iowa.—Guthrie:* Our people are not ready for winter, and are behind every way. There is too much speculation, and not enough good farming; too many mortgages on the farms, and not enough manure and clean culture. Ruin is coming to hundreds of homes in this way. *Des Moines:* Since the 20th of May, about twenty-six inches of water has fallen. While this has damaged our crops very materially, it has stimulated tile-draining to a wonderful degree; so that good may yet come from an apparent evil. *Jasper:* Iowa has less corn by 15 per cent. than at this date last year. The high price of corn during the year, and the

failure of the wheat-crop, caused the old corn to be sold out closely, especially as a large new crop was in prospect.

*Missouri.—Saint Clair* : Our people are hauling more produce to the railroad, at various points, than ever before: castor-beans, broom-corn, flax-seed, onions, potatoes, and cabbage. The two years of failure have recuperated the soil, and caused the people to plant more kinds. Hence every one has something besides corn to sell. *Johnson* : Nearly all the pear-trees standing one year ago have since died, or are badly blighted. The cause is difficult to discover. The autumn has been propitious for the farmer. No excessive rains have fallen to injure the fodder of corn in the shock, which is our main dependence as forage for the winter. Even corn cut entirely green is now thoroughly cured. All vegetables that are seasonably late are abundant, and of excellent quality. *Clay* : Since the destruction by the grasshoppers, crops of all kinds have grown beyond precedent, as to quantity and quality. Food for stock is abundant, and pastures abound with rye instead of blue-grass. *Laclede* : Although the floods destroyed much corn, wheat, oats, &c., on the river-bottoms, yet almost all kinds of crops are good. The uplands are so much better than common that the whole crops are placed above average and the prospects of the county are far better than last year.

*Kansas.—Miami* : The failure of wheat, oats, timothy, clover, flax, &c., by ravages of the grasshopper, caused the planting of an extraordinary breadth of corn, potatoes, beans, buckwheat, and vines of all kinds. Then the finest season for the growth of these crops has brought our farmers bountiful harvests of them. There was a little too much rain for sweet-potatoes, but the season was just right for Irish potatoes and corn. Ears of corn 12 inches in length, and well filled with the most solid grains, are quite common. The potato-crop is wonderful for extent, quality, and size, worth 15 cents in the market here. The crops of pumpkin and squash are great. Of the Chilian mammoth squash, many weigh 100 pounds, and the premium one at our county fair weighed 143. Our people are well supplied with everything but "greenbacks." *Nemaha* : Last year we had almost nothing; this year we have a great abundance. *Cowley* : Our corn-crop this year, averaging 35 bushels per acre, will yield 1,250,000 bushels; wheat, 20 bushels per acre, 500,000 bushels; oats, 40 bushels per acre, 250,000 bushels. *Graham* : All our crops were destroyed last year, while this year they are all good. *Osage* : Last season we had nothing worth noting; this season our crops are large beyond any precedent.

*Nebraska.—Dixon* : Neither corn nor potatoes were raised last year. The whole crops were destroyed by grasshoppers. This season we have the best crops ever raised.

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## THE DESICCATION OF FRUITS AND VEGETABLES.

BY THE COMMISSIONER.

There is, perhaps, no subject which at this moment is commanding more attention, and none which possesses more substantial interest to the agriculturist, than the process for the preservation of food. Of all the vegetables which supply the wants and provide for the comfort of men and animals, there are but few that do not soon decay and are lost. And perhaps, of all the fruits and vegetables that grow, it would be



safe to say that one-fourth at least become useless and perish, because there are no means at hand for their preservation. From seventy to ninety per cent. of them all consists of water, which is the cause of their decay.

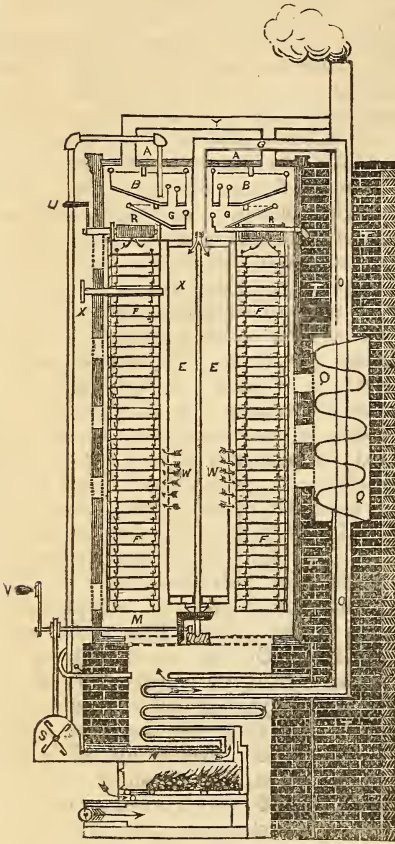
In all time the desiccation of fruit and vegetables has been deemed an industry of some importance and of great necessity; but it is carried on by a process so slow, so uncertain, so inefficient, and so unprofitable, and, withal, so unsatisfactory in its results, because of the oxidation of the substance dried, of its loss of some of its valuable constituent parts, and especially of its exposure to vermin during the long process of drying. It is, therefore, a matter of congratulation that the minds of ingenious men have been successfully applied to the invention of machinery by which any species of fruit or vegetable may be so effectually, speedily, and cheaply desiccated as that it may be kept for any time and in any climate, without decay or injury.

Within the last few years three several machines have been patented, each of which professes to have attained the desired object—a perfect desiccation of fruits and vegetables.

In 1861, letters-patent were granted to Francis H. Smith, of Baltimore, “for improvements in the drying and preserving of

fruits, vegetables,” &c. In 1870, like letters-patent were granted to C. Alden, of New burgh, N. Y. In June, 1875, letters-patent were granted to A. J. Reynolds, of Baltimore, for a machine called “Reynolds’s improved evaporator.”

It may be truly said of all these, that it is their object, their principle, their plan, and mechanical operation, by the application of artificial heat, to drive off all the water which is contained in the matter subjected to them, without depreciating in any degree its valuable properties; so that when the fruit or vegetable is again subjected to water, it is restored essentially to what it was before it went into the machine. It is doubtlessly true that the slow process of drying by exposure to the sun and air greatly oxidizes and discolors the material, and doubtless deprives it, to some extent, of its saccharine constituent; while the oven, which is used for the same purpose, is somewhat irregular in its action, not effectually drying some and scorching some, while it also deprives the material of some of its valuable constituent parts. The merits of the machines lately invented, I believe, consist in the application of artificial heat to the material to be desiccated, within a confined space,



whereby it is speedily dried, and not subjected to the escape of any of its constituent parts, except that of water. The fruit is preserved in its purity, to be restored to its original condition when again subjected to water.

It is not my province to exercise any judgment, nor do I purpose to express any opinion of the relative merits of these patented machines, but only to communicate to the agricultural community an idea of the mechanical structure of them, that they may judge of their mode of operation, their efficiency, and their practical usefulness.

Of the first two named, Alden's and Smith's, while I readily observe the difference in their mechanical operation, I confess I cannot perceive any difference in the principle which governs the application of heat, or the result obtained. Each consists of a vertical square box of wood, lined with galvanized iron, varying in height from fifteen to five and twenty feet, in which is hung a series of shelves, about nine inches apart, upon which is placed the fruit or vegetable to be dried, and at the bottom of which artificial heat is applied. These shelves, made of wire or of any perforated material, are moved up and down, in one case, by an attachment to an endless chain, and in the other, by a screw. The green fruit is placed upon these shelves at the bottom, or at the top, as the case may be, and taken out at the bottom or top when sufficiently dried. The shelves are moved up and down by a crank, the speed of which is governed by the necessity of the case and the judgment of the operator. Each of these machines is large or small as the exigencies of the case require a greater or less amount of work to be done. And their cost is in the same proportion, varying from one to five thousand dollars.

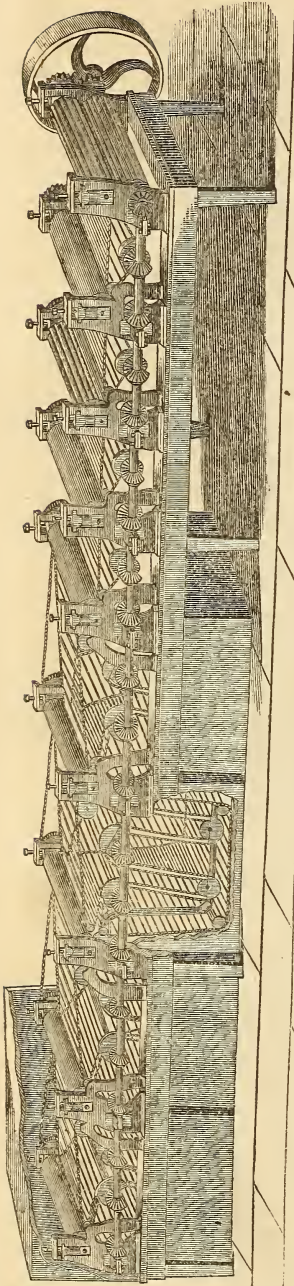
The machine of A. J. Reynolds differs essentially from the others in its application of heat. Its shelves of fruit, operated also by a crank and cog-wheels, have a rotary motion; the heat is introduced at the bottom of a cylinder, which may be of a size proportioned to the amount of work to be done, within which rotate the fruit-shelves upon a spindle which supports them, and in the center is a hollow drum, whose only office is to occupy space, and thereby confine the heat to the material to be dried. Unlike the machines of Alden and Smith, before described, the vapor created by the heat and process of drying is not allowed to escape directly at the top, but is there conducted into condensing-tubs of water and flows off gradually. The shelves of fruit, when dried, are all removed at once by opening a door of one side of the outer cylinder. Heat is also introduced into the side of this machine through the medium of the smoke-pipe, which passes up alongside of the outer cylinder. It is claimed for this machine, that it consumes less fuel and diffuses the heat more generally and continuously than any other; that it may be used of so small a size as to be adapted to the top of a common stove, and from such a size up to the largest, which is 10 feet in diameter and 16 feet high. The price varies from fifty to twelve hundred dollars.

When we consider the great importance of the desiccation of fruit and vegetables effecting the saving of so large a portion which is now lost; for keeping them for any length of time, and in all weather and climates, and in view of their transportation, (their weight is reduced at least three-fourths,) too much importance cannot be attached to the subject.

I would have been pleased to have furnished drawings of each of these machines, whereby they might have been better understood, but only that of "Reynolds's Improved Evaporator" was at hand, and that is herewith given.



## FACTS FROM VARIOUS SOURCES.



**A NEW RAMIE-MACHINE.**—At the late Mechanics' Institute fair in San Francisco, Mr. C. C. Coleman, of Honolulu, Sandwich Islands, exhibited a machine of his invention for the preparation of the fiber of the ramie or China grass. From the description given, the process appears to be very simple. The plant, freshly cut at its full-ripe stage, is passed through a series of rollers, being carried along by moving wire screens. It dips into tanks filled with steam, hot water, and bleaching-chemicals.

The rollers crush the plant and squeeze out the glutinous matter, which is absorbed by the water and steam. The mass is passed through the machine as often as may be necessary to dissolve and remove all the extraneous gum and other elements and to bleach the fiber itself. After each submersion it is passed through rollers, which squeeze out the water with the matter it has absorbed from the plant. It is not even necessary to remove the leaves, as these are separated by the machinery. The fiber is not broken nor even weakened by the process. This is an immense reduction of labor from the manual process of India and China, where a workman does well if he secures a pound and a half of clean fiber per day, making its cost about \$150 per ton.

If this machine should realize the expectations of its inventor, it will solve at once the problem of ramie-production in this country. It is claimed that large tracts of land in California will average 1,250 pounds of pure fiber per acre, calculating it at 10 per cent. of the entire bulk of the plant. Others estimate the yield of fiber at only 5 per cent., and the truth lies, probably, between the two estimates. The prepared fiber, formerly exported from California to England, passed through the custom-house at a declared value of £9 to £80, or \$45 to \$400 per ton. It is claimed that Coleman's machine will clean the fiber at a cost of \$20 to \$30 per ton.

**AGRICULTURAL EXPERIMENTS IN NEW JERSEY.**—Results of experiments by Dr. George H. Cook in growing corn on the Agricultural College farm are reported as follows: The corn was planted on plots of one-tenth of an acre each. On two plots



planted on sod without any manure, it yielded at the rate, respectively, of 93 and 94 bushels per acre. On a third plot, ammoniacal manure, costing at the rate of \$26 per acre, gave an increase of only one bushel per acre. On a fourth plot, 100 pounds of muriate of potash, costing \$2.75, increased the yield to the rate of 109 bushels per acre. The quantity was determined by weighing the corn on the cob, and allowing eighty pounds to the bushel.

Dr. David Petit, of Salem County, is reported to have harvested this season, from corn planted 2 feet by 3 feet apart, 283 bushels per acre, the fact being attested by a "sworn statement." It is added, that he has produced single ears of "yellow field-corn" which would yield a quart of shelled corn each.

Mr. John Wall, of Madison, Morris County, grew a field of fifteen acres, which was treated as follows: Six years ago the field was cleared, plowed, treated with 50 bushels per acre of gas-lime, and sown in grass. Last spring the sod was turned, a little ashes and bone put in the hill, and, after the corn was up, 50 bushels per acre of slacked lime spread on. The product of one acre, judged to be a fair average of the whole, was measured, and the yield was 171 bushels of very large ears.

Mr. Wall also reports the result of an experiment in growing potatoes. On sod-land, barn-yard manure was dropped in heaps last fall, at the rate of twelve loads per acre. In the spring this was spread broadcast and plowed in. With a "cabbage-plow," very shallow furrows were made 3 feet apart, and about 600 pounds per acre of bone-dust were dropped in the furrows, in which cut potatoes, of the Peerless variety, with two eyes in a piece, were planted, 12 inches apart, and covered lightly with the plow. When the plants were 5 inches above ground, 50 bushels per acre of slacked lime were spread on. The field was plowed three times: first deep, and throwing the furrow away from the rows; second, throwing the furrow to the rows; and third, the middles were split, throwing the furrow to the rows. The beetles were caught and killed. The product measured 288 $\frac{3}{4}$  bushels per acre. Most of the seed used was of large potatoes, which gave a better yield than that of small. On measured portions of the field, Mr. Wall applied bone-dust in different quantities, and from the result concludes that 2,000 pounds per acre is the most profitable rate. He is decidedly in favor of shallow planting and covering.

**CRANBERRIES IN NEW JERSEY.**—A correspondent in Atlantic County New Jersey, reports the following facts respecting cranberry production in the western portion of that, and in the eastern part of the adjoining county of Camden. Within an area having a radius of about ten miles, there are 1,000 to 1,200 acres in cranberry meadows. They are owned partly by companies and partly by individuals, and vary in extent from half an acre to 100 acres. The early promise of an enormous yield the past season was reduced at least one-third by the rot. On all meadows thoroughly drained and well supplied with running water, the fruit suffered but little. On low places where the water is stagnant, and on meadows where the top muck has been removed, the fruit rots every year. This year the fruit was attacked by a new disease, or by the old one in a new form, and later in the season. In a bunch of matured berries, in contact, a part will be sound and others affected, and single berries are found one-half sound and the other soft. Some meadows have proved an entire failure, while others have yielded more than 100 bushels per acre. The average yield will not be more than 35 or 40 bushels per acre. In respect to size and evenness, the quality is about

average. Our correspondent regards it as settled, that cranberries cannot be successfully raised without a muck-subsoil, sanded on the top, good drainage, and a command of plentiful running water.

**PEANUT CROP IN VIRGINIA.**—The following statistics, respecting the peanut crop of Virginia, for the year ending September 30, 1875, are condensed from a "review" prepared and forwarded to this department by Mr. Thomas B. Rowland, of Norfolk. Scarcely a bag of the old crop was left in the State on the 1st of October, when the new began to appear in the Norfolk market. The price began at \$2.50 per bushel, and ranged between that and \$2.25 the first half of that month; but during the last half worked down to \$1.50. In the first half of November it descended as low as \$1.25, but by the 20th was up again to \$1.50, between which and \$1.80 it ranged, for the most part, through the year ending September 30. But under "speculative attempts" and "spurts" limited sales were effected in February at \$2; March, \$1.90 to \$2.25; April, \$2.25 to \$2.50; and in May, \$2. By the 1st of October, 1875, none of the old crop that could be classed "good" was left in market. Mr. Rowland gives the monthly receipts at Norfolk for the year, and the lightest were, October, 1,051 bags; the heaviest, December, 12,117 bags; January, 14,689; February, 15,047; March, 16,339. The aggregate was 91,407 bags. At Petersburg 15,910 bags were received, and Mr. Rowland estimates the receipts at Richmond at 20,000, making the total production in the State, in 1874, 109,317 bags. At  $3\frac{1}{2}$  bushels per bag, which Mr. Rowland regards as rather under the average, the amount would be 382,610 bushels. Mr. Rowland thinks the acreage of the crop of 1875 was 10 to 20 per cent. above the previous one, and that it is "excellent in quality." He states that the light frosts have scarcely damaged it, and that the crops left in the ground have continued to improve in maturity to a wonderful degree, promising that the later diggings, which constitute by far the larger portion of the crop, will be extra, plump, and well filled, needing only bright cool weather to cure one of the best crops ever made. The receipts of the new crop at Norfolk, up to November 1, were 2,186 bags.

**LARGE CORN-CROP.**—Mr. Tom Crutchfield, of Amnicola, near Chattanooga, Tenn., reports the yield of his corn-crop in 1875 as follows: In a field of 40 acres, bottom-land, an average acre, gathered and measured November 2, yielded  $119\frac{3}{8}$  bushels by measure, or  $106\frac{15}{16}$  by weight. An average acre in another part of the field, planted earlier, gathered and measured on the 21st, yielded  $114\frac{3}{4}$  by measure, or  $109\frac{19}{32}$  by weight. In a field of 118 acres upland, an average acre in one part, gathered and measured on the 22d, yielded  $55\frac{1}{2}$  by measure, or  $51\frac{33}{64}$  by weight; in another part,  $58\frac{1}{2}$  by measure, or  $55\frac{11}{16}$  by weight. The bottom-land had been in grass some years and heavily pastured with sheep annually, from the time the hay was cut until the following March. Last spring the flood left upon it a sediment 6 to 18 inches deep. It was plowed to the depth of about 9 inches, cross-plowed, harrowed, checked off, 4 feet by 2, and planted from the 29th of April to the 11th of May. The seed was soaked twenty-four hours in copperas water and rolled in gypsum. The covering was done with a shovel-plow. After a good stand was secure, it was thinned to an average of one stalk per foot in the row and kept clean and well cultivated.

**IMPROVEMENT IN WHEAT CULTURE.**—A correspondent in Henderson County, Tennessee, in reporting favorably on the condition of wheat sown this autumn, states that in that section there is a decided im-



provement in the process of wheat culture; such as a more careful preparation of ground, selection of seed, &c.

**CATTLE DISEASE IN ARKANSAS.**—The following statements are condensed from a communication by our correspondent in Crittenden, respecting a disease among cattle in that county: The disease is confined to cattle along the river, (in no way exposed to Texas cattle,) and among them those on some farms entirely escape; those on the farm of our reporter, residing at Grayson, were not attacked; on two adjoining farms nine-tenths were lost. In that immediate neighborhood the loss amounts to fully three-fourths of all the cattle, but will not average for the county more than one in two hundred. The first symptoms are loss of appetite and high fever. In some instances death follows in a few hours, but the average interval between the attack and its fatal termination is about four days. One farmer, who out of twenty-five lost all but two, reports that he saved the latter by feeding them on cotton-seed. He thinks the whole seed better than meal, and ascribes its virtue chiefly to its effect in moving the bowels.

**EPIZOOTY.**—Our correspondents in different sections have noted a distemper or influenza prevailing among horses this autumn. It is generally described as a recurrence of what was known as the epizooty. But if so, it is in a much milder form than at its previous visitation. Very little serious damage and scarcely any loss has been reported; though a correspondent in Mobile writes, November 18, that in that city, and throughout Alabama, the disease is causing much trouble, and “seems to be growing worse every day.”

**COTTON MANUFACTURE IN TEXAS.**—The Northeast Texas Council, Patrons of Husbandry, headquarters at Jefferson, Marion County, report the organization of a joint-stock company for manufacturing cotton fabrics. The president and local agent is Dr. J. R. Biggs, of Jefferson. The stock is issued in shares of \$25, to give everybody a chance to participate. Every county should organize a similar enterprise, by doing which the cry of hard times would be banished from the South.

**LOSS OF ANGORA GOATS.**—Mr. Hardy, of Mohave County, Arizona, recently purchased 2,000 Angora goats in California. As they were passing through the Mohave Desert, in Kern County, they ate freely of a variety of milk-weed, from the effects of which 500 died, and many of the remainder are left in a very enfeebled condition.

**ANGORA GOATS IN OREGON.**—Messrs. Landrum and Rogers, of Westonville, Cal., introduced 2,400 of these goats into the Willamette Valley to aid in subduing the “club land” for cultivation.

**HORSE-BREEDING IN ENGLAND.**—Sir Charles Legard, member of Parliament, commenting upon the remission of the tax on horses, stated that the historical pre-eminence of England, as a horse-producing country, had of late been contested by several continental countries in which special attention had been paid to this branch of agricultural industry for the past twenty years. Foreign breeders have shown a determination, at almost any cost, to obtain the best blood of England for their own studs, and their late triumphs at some of the English races was a note of warning to the government to take immediate steps to retain in the country the choice stallions and the best strain of the blood extant. Prussia had especially been active, buying up all the active, short-legged, sound hack-mares in the United Kingdom at £5 per head more than any other buyer would offer. This class of animals was now almost



extinct in the country. The progeny of these mares, crossed with pure-blood stallions, gave the Prussian cavalry a great efficiency in the late Franco-German war. While the British government haggled about £40 per head for artillery horses, the French government got the choice of the market at £45 and £50 per head. During 1872 14,000 brood-mares were exported to France, every one of which should have been retained in the country. The honorable gentleman proposed that the government should keep a full number of first-class stallions in different parts of the country, and allow them to serve good mares at as low prices as would be consistent with the expense incurred.

Mr. Jacob Smith, chairman of the Boroughbridge Agricultural Association, differed from the above conclusions of Sir Charles Legard in several points. He did not think that there was any scarcity, for instance, of thoroughbred horses. Hunters of high character had increased in value, but were accessible to those who were willing and able to pay the market price. The scarcity was greatest among harness-horses, especially on farms. The select parliamentary committee had attributed this scarcity first to exportation of mares, but this export had nearly ceased. Secondly, the attention of farmers was distracted from horse-breeding by the superior profits of cattle and sheep, assuming that there was some profit in horse-breeding, which the speaker doubted. He did not believe that one in twenty of English horse-raisers could, upon an intelligent presentation of expenses and values, show any appreciable margin of profit upon a four-year-old horse, while many were conscious of serious loss. The third reason urged by the committee for the decline in horses—that the rapid growth of the population in numbers and wealth, by enlarging the demand, produced a relative if not an absolute scarcity—he thought did not apply to carriage-horses. The greatest demand now is for a class of animals formerly almost unsalable, ride and drive horses, and horses between that class and cart-horses. Agricultural horses had increased most in value, and had fluctuated most in price. The supply of the latter is undoubtedly increasing. Nearly every farmer now has cart-mares, and will breed from them at current prices. Though not disposed to attack racing, he could not help alluding to the large number of fine mares kept for sport which should be put to breeding. The high prices of horses was producing a reaction. The number of mares kept unbroken for breeding purposes in England was 268,177 in 1874, an increase of 25,695 over 1873. Every county in England and Wales showed an increase. The English farmer would not be slow to find a margin of profit in horses as well as in sheep and cattle.

**BRITISH MALT CONSUMPTION.**—During the year ending with September, 1874, the common brewers of the United Kingdom consumed 47,219,780 bushels of malt, an increase of 1,685,804 over the preceding year. The increase was nearly all in England alone, Scotland showing a decrease and Ireland only 39,000 bushels more than in 1873. The consumption of other parties than the common brewers, such as victualers, licensed retailers, &c., brewing their own beer, amounted to 10,843,493 bushels, a decrease of 868,268 bushels.

**DEEP OR SHALLOW WHEAT CULTURE.**—Mr. Mechi has been in the habit of cultivating wheat after mangel, kohl-rabi, cabbage, and turnips. For the preliminary crop he subsoils deeply and manures heavily, but for the subsequent wheat-crop he breaks the ground only with a single plowing with one pair of horses. He finds that deep culture just before wheat-sowing enlarges the straw product at the expense of the grain.

The heavy foliation of the plant is often very deceptive in regard to its yield, while light-looking fields generally produce largely in quantity and of very superior quality. He quotes Liebig in support of his views as follows: "But in proportion as the conditions for the formation of the straw and leaves became more favorable, so did the quality of the seed deteriorate as the quantity diminished." He cites the practice of some successful farmers who, on finding their crops too rank, trod them with men and horses. Salt stiffens the straw and checks rank vegetation, but it should be used in moderation. He always scattered it in connection with guano.

**FRENCH CROPS.**—M. Barral, with the approbation of the *Association Française pour l'Avancement de Science*, proposes the following method of estimating the crops of France. The departments are divided into six classes, according to the extent and quality of their crops. The first class embraces those in which the crops are very good, and their area is multiplied by 20; the second class is characterized as good, and their area multiplied by 18; the third class, as tolerably good, and multiplied by 16; the fourth class, passable, multiplied by 14; the fifth class, as poor, and multiplied by 12; the sixth class, as bad, and multiplied by 8. The sum of these products, divided by the sum of the areas, is assumed as an approximate indication of the yield and quality of the crops. In 1874, M. Barral determined the average of the wheat-crop at 18.50, the maximum being 20, the total yield being estimated at 130,000,000 hectoliters, or 368,916,600 bushels. In 1875 he makes the average but 12.50, and the yield 82,000,000 hectoliters, or 232,701,240 bushels. During the current year none of the departments reach the first class as yielding very good crops; 13 departments are of the second class; 26 of the third; 25 of the fourth; 30 of the fifth, and 8 of the sixth. France annually consumes from 72,000,000 to 74,000,000 hectoliters, and uses 14,000,000 to seed her wheat-fields. She has then a deficiency of 4,000,000 hectoliters, or 11,351,280 bushels. This deficiency, however, is more than made up by the unconsumed surplus of 1874. About 10,000,000 hectoliters of the crop of 1874 were exported; a portion of the remainder was of poor quality, leaving from 15,000,000 to 18,000,000 hectoliters available for consumption. The foreign outlook shows a small crop in England; a good one in Germany; a bad one in Russia; below average in the United States; a good one in Italy and Austria; a bad one in Hungary; below average in the Danubian principalities. Foreign countries will therefore demand a portion of the French crop instead of supplying its deficiencies. The French rye-crop is good; barley and maize are below last year, and oats much better.

The Paris correspondent of the *Mark Lane Express* says that the most trustworthy judges estimate the French wheat-crop at 95,000,000 hectoliters, (269,592,900 bushels,) with a surplus of the crop of 1874 equal to 20,000,000 hectoliters, (56,756,400 bushels.) Spanish crops have suffered from an unfavorable growing season.

**FRENCH VINTAGE OF 1875.**—The *Journal des Debuts* says that the summer solstice was marked by wet, showery weather, which was followed by continuous sunshine, presenting, on the whole, a remarkably good season for the maturity of the fruit and the excellence of the wine-product. The noted wines of Bordelais and Burgundy promise their usual standard. In Central France, Lower Burgundy, and Champagne there has rarely been in the past a promise of larger yield than during the present year. Vine-growers in this region confess themselves perfectly



satisfied. In the south the damage from inundation, though serious, was not so great as was at first stated. The prolific yields of the past few years have placed the vine-growers in comparatively easy circumstances. On the whole the French wine-product will be abundant, and at least of medium quality; it will probably reach 60,000,000 hectoliters, or 1,585,068,000 gallons, worth, at 20 francs per hectoliter, \$240,000,000. France exports wines to the amount of 250,000,000 francs per annum, but this represents less than one-tenth of the home consumption in a productive year. About one-tenth of the total product is used for the manufacture of brandy, and scarcely 1 per cent. for vinegar. Yet this mighty productive interest stands aghast at the ravages of the *Phylloxera*, which threatens to undermine its prosperity.

The Paris correspondent of the Mark Lane Express estimates the French vintage at 80,000,000 hectoliters, (2,113,424,000 gallons.) The distribution is quite unequal. The floods in the south have cut down the crop, while in the interior the yield is above average.

FRENCH AGRICULTURAL STATISTICS.—From the census of 1872 it appears that the agricultural population of France, including men, women, children, and domestics, numbered 18,513,325. Prior to the revolution of 1789 two-thirds of the landed property of the country was in the hands of nobles and ecclesiastics. In 1854 the number of land-owners was 7,846,000, or 1 in 5 of the population. From 1845 to 1872 the proportion of *cotes foncières* continued to enlarge, the number being 10,083,731 in 1815 and 13,863,793 in 1872. What is called "*petite culture*" ceased to increase in consequence of late changes in legislation, yet half the exploitations embrace tracts of 5 hectares (12½ acres) or less, and three-fourths of 10 hectares (25 acres) or less. Medium culture embraces tracts between 10 hectares and 40 hectares, (100 acres,) and grand culture all properties still larger. Small culture embraces 75.18 per cent. of the whole number of exploitations; medium culture, 19.75 per cent.; and grand culture, 4.77 per cent.

The cash value of the soil, including shops, barns, &c., in 1821 amounted to 39,544,000,000 francs; in 1851, to 83,744,000,000, an increase of 116 per cent. in thirty years, and the cadastral revenue from 1,580,597,000 francs to 2,643,366,000 francs, or 70 per cent. during the same period. The present value is estimated at 120,000,000,000 francs.

The principal financial charges are the land-tax, (*impôt foncier*), *les droits de mutation et d'hypothèques*, and the interest on mortgages amounting to about a third of the income of rural properties. Farm-laborers are divided into two categories, those permanently engaged and residing on the farm, and day-laborers. According to a table compiled in 1858 by the minister of the interior, the average day's wages of a laborer was, at that time, 1.75 francs, and is now about 5 per cent. more. The statistics of 1852 showed the following average of annual expense of living of an unmarried day-laborer as follows: lodging, 27 francs; board, 230 francs; clothing, 45 francs; total, 302 francs. This expense has since risen to about 350 francs.

Human labor in 1852 was supplemented by the employment of 1,450,000 horses, 173,000 mules, 220,000 asses, 1,680,000 oxen, 1,370,000 cows, or 4,893,000 draught-animals. Cereal culture has ever been the predominant branch of French farming, occupying an annually increasing acreage since the commencement of the present century. In 1815, 32,814,481 acres were sown in cereals; in 1835, the acreage had risen to 36,790,713; in 1855, to 41,783,830, showing an average annual increase in forty years



of over 220,000 acres. Wheat-culture especially has shown great expansion. In 1815, this grain occupied 11,346,493 acres, producing 111,982,133 bushels, or 9.9 bushels per acre; in 1873, 16,857,469 acres yielded 232,296,648, or at the rate of about 13 $\frac{3}{4}$  bushels per acre. During the year last named the crops of leading countries in Europe and America were estimated as follows: England, 106,627,114 bushels; Scotland, 3,868,772 bushels; Ireland, 6,915,837; total United Kingdom, 117,411,723 bushels; Prussia, 80,278,861 bushels; Austro-Hungary, 112,151,000 bushels; Russia, 227,040,000 bushels; Spain, 187,308,000 bushels; Italy, 101,465,200 bushels; United States, 281,254,000 bushels. The ruling prices of wheat in France are stated as being between \$1.14 and \$1.35 per bushel, averaging \$1.23; but local circumstances undoubtedly considerably widen this margin. In abundant years France has a surplus of wheat for exportation; in scant years she finds it necessary to import. From 1816 to 1873 short crops in thirty-four years required an excess of imports; in twenty-four abundant years the exports were in excess; the imports are mostly drawn from Russia, Poland, Prussia, the United States, Roumania, Spain, Italy, and Egypt. The liberalization of tariff legislation in different countries during twenty years has exerted a very favorable influence upon the French grain-trade.

The vineyards of France cover 4.27 per cent. of her area, and are found in all the departments except ten. This culture has notably increased since 1788, when from 3,873,943 acres 132,088,000 gallons of wine were produced, averaging nearly 35 gallons per acre. In 1873 the acreage had risen to 4,975,842, and the production to 943,528,080 gallons, averaging 189 gallons per acre. The most abundant year, 1875, yields about 2,113,000,000 gallons, while 1854, the poorest of late years, yielded only 285,044,601 gallons. In 1806 the average price was 20 cents per gallon; in 1873, 41 $\frac{1}{2}$  cents. In 1837 the importation of common wines amounted to only 14,318 gallons, valued at \$4,442, and the exports to 31,224,281 gallons, valued at \$8,503,694. In 1873 the imports amounted to 15,976,303 gallons, valued at \$4,913,448, and the exports to 106,652,195 gallons, valued at \$55,453,249. Wines are imported mostly from Spain, Italy, and Germany. The bulk of the export goes to England, Belgium, the United States, Germany, and Algeria and other French colonies.

**ROTATION OF FLAX.**—At the last session, at Nantes, of the *Association française pour l'Avancement de Science*, M. Reynard presented a paper showing that economic or industrial plants, which return to the soil little or nothing in exchange for the fertilizing principles withdrawn from it, should not be cultivated two years successively upon the same ground. Flax is one of these, and should not be grown even once without a heavy covering of the strongest manures. In common with other tap-rooted plants absorbing their nourishment from the extremity, the flax uses the fertilizing principles of the surface while absorbing those of the subsoil. Pliny said, with reason, that this plant burned and impoverished the soil.

The interval between flax-crops has varied in past ages. Anciently it was fifteen years, but flax was then not in so general use as now; such long intervals then made the crops more excellent. Flanders, to sustain the reputation of her linen fabrics, formerly held to an interval of twenty years, though many efforts were made to shorten it, and the interval is now variable. In France it ranges from three to seven years. The shorter intervals secure but indifferent quality of fiber, while longer periods are observed by experienced cultivators. The Belgians vary from three to twenty years.

Experiments for the shortening of the interval, by means of powerful fertilizers, have been unsatisfactory. Soils thus forced do not readily recover their fertility. Even when cultivated on a new soil, but alongside of one cultivated in flax the previous year, this crop often fails to come to maturity for three or four meters next the old soil, and sometimes for double that distance.

In addition to these discouraging facts, the culture of flax is one of the most laborious, and its product can be utilized only after passing under the hands of the retter and the stripper, the latter being generally called the flax-maker. But if thus greedy of labor as well as of capital, flax-culture is one of the most remunerative, a good crop reimbursing several bad ones. It also leaves the ground in better condition for subsequent crops.

For use, and on account of being an indigenous crop, flax is regarded as above cotton by the Belgians as a textile, though many farmers prefer hemp as a remunerative crop. Such ignore the fact that flax is more productive than hemp, and that in certain soils hemp is only used to prepare the seed-bed for flax. For use, also, hemp is much less durable than flax; the thickness of its fiber, charged with gum, gives it a weight which is greatly reduced by washing.

Subventions of the English government have caused the culture of 26,000 acres in Ireland with flax. The French government has never granted any subventions, but local committees have given partial assistance; hence flax-culture has lost ground in France.

Since the formation of the Belfast "Irish Association for the Propagation of Flax-culture," Robert Kane has been analyzing numerous types of this textile, and preparing a formula for good and cheap manures. This formula, still employed in Ireland, is composed of pulverized bones, chlorides of potassium and soda, powdered white plaster, and sulphate of magnesia.

Subsequently, at the Agronomic Institute at Versailles, Georges Ville proposed a formula for flax-fertilization antipodal to Kane's prescription. Regarding chlorides as injurious to many crops, especially to flax, his formulæ were exclusively composed of acid phosphate of lime, sulphate of ammonia, nitrate of soda, nitrate of potassa, and plaster, in different proportions. He cashiers all raw salts, chlorides and sulphates of soda and potassa. Ville's formula embraces 400 kilograms of superphosphate of lime, 200 kilograms of nitrate of potash, and 400 kilograms of sulphate of lime; total, 1,000 kilograms per hectare, or 892.2+ pounds per acre.

The *Société agronomique* of Eastern Flanders, located at Ghent, tried several experiments in flax-culture with farm-manures and with the formula of Ville on different plots of equal size. During five years, commencing with 1869, one of these plots was fertilized each year at the rate of 20,000 kilograms of barn-yard manure and 500 kilograms of colza-oil-cake per hectare, or about 17,844 pounds of the former and 446 pounds of the latter per acre. The other was fertilized with 1,000 kilograms of Ville's preparation per hectare, or 892.2 pounds per hectare. In 1869 the first plot produced 3,359.16 pounds per acre of straw and 679.86 pounds of beaten flax; the second, 4,098.81 pounds of straw and 817.26 pounds of flax. In 1870 the first produced 4,218.36 pounds per acre of straw and 807.45 pounds of flax; the second, 4,098.81 pounds of straw and 847.60 pounds of flax. In 1871 both plots produced the same amount of straw, 3,857.91 pounds per acre, but the chemical fertilizer made 1,048.35 pounds of flax, while the barn-yard manure made but 753.92 pounds per acre. In 1872 the Ville fertilizer produced 3,947.13

pounds of straw per acre and 868.12 pounds of flax, while the barn-yard manure made but 3,134.33 pounds of straw per acre and 505.88 pounds of flax.

Previous to 1872 flax had been sold in Flanders with but little regard for differences of fiber, but it was subsequently found that the flax grown with chemical manure was worth  $1\frac{1}{2}$  francs per 6 pounds more than that grown with barn-yard manure.

In 1873 the society renewed its experiments. Three sowings were made, two on experimental plots and a third on a well-worked oats-stubble, oats being considered a very eligible preliminary to flax-culture. The last-named plot had been treated with 33,011.72 pounds of barn-yard manure in November, 1872, and on the 5th of April, 1873, was fertilized with Ville's preparation at the rate of about 250 pounds per acre; it produced 4,881.27 pounds of straw, 1,262.48 pounds of flax, and 308.7 pounds of seed per acre.

The second plot, one of the original plots on which four previous crops of flax had been grown, was fertilized with Ville's preparation at the rate of 1,070.65 pounds per acre, and produced for its fifth consecutive crop 4,095.24 pounds of straw, 861.87 pounds of flax, and 240.89 pounds of seed per acre.

The third plot, of new ground, was treated with 35,688 pounds of farm-yard manure and 802.98 pounds of colza-oil-cake per acre; it yielded 1,446.27 pounds of straw, 251.6 pounds of flax, and 120.45 pounds of seed per acre.

From these experiments it appears that the new oats-ground, with a comparatively light chemical fertilization following the heavy stable-manuring of the previous autumn, yielded the largest crops, while the new land heavily manured just previous to the sowing showed the poorest return. The other plot, from which five crops had already been grown, maintained about its average production with previous years.

**INFLUENCE OF AGRICULTURAL MACHINERY.**—In a late address before the agricultural committee of Ambazac, in France, M. Teisserenc de Bort stated that while in France the culture of the soil employs forty-five persons per hectare, in England it employs but sixteen, and in the United States nine. This difference is ascribed to the extended employment of machinery, especially in America, which causes farming operations to be more thoroughly and promptly performed. French farms are mostly too small to admit the expense of perfected machinery. The great English land-owners subdivide their estates among tenants in such a way as to secure the greatest benefit. English farms average 45 hectares, and Scotch 30 hectares. Of 2,660,000 American farms, 2,070,000 are less than 40 hectares. A hectare is 2.47 acres. American farmers often associate their capital for the purchase of costly machinery, an example which French farmers would do well to follow. Large landed proprietors should take the initiative and secure machinery for the use of their tenants at a reasonable cost.

**MARKETING OF FARM-PRODUCE IN PARIS.**—The *Journal Pratique d'Agriculture*, from official sources, gives the following figures, showing the quantities of meat, butter, and eggs sold at the *halles* of Paris during 1872 and 1874:



	1872.		1874.	
	Quantity.	Average price.	Quantity.	Average price.
		<i>Franks.</i>		<i>Franks.</i>
Beef.....kilograms.	5,747,033	1.43	6,956,550	1.37
Veal.....do..	7,614,979	1.56	8,454,683	1.37
Mutton.....do..	2,638,971	1.58	4,024,595	1.33
Pork.....do..	2,149,675	1.43	2,728,447	1.30
Butter.....do..	10,228,933	2.90	10,349,421	3.18
Eggs.....thousand	232,195	78.63	213,413	81.85

In addition to the above there were sold at the *Marché de l'abattoir de la Villette*, of beef, 238,093 kilograms, at 1.29 francs, in 1872, and 209,703 kilograms, at 1.14 francs, in 1874; of veal, 75,819 kilograms, at 1.24 francs, in 1872, and 92,870 kilograms, at 1.22 francs, in 1874; of mutton, 14,242 kilograms, at 1.42 francs; of pork, 20,323 kilograms, at 1.23 francs, in 1872, and 31,006 kilograms, at 1.14 francs, in 1874. The total quantity of meat marketed in 1872 was 18,499,140 kilograms, or 40,784,708 pounds; in 1874, 22,540,879 kilograms, or 49,696,729 pounds.

**FRENCH EXPERIMENTS IN FIXING DRIFTING SANDS.**—Along the coast of the departments of Gironde and Landes, in the southwest of France, dunes, or hills made by drifting sands, extend from the mouth of the Garonne to that of the Adour. The distance is one hundred and twenty miles, and they had attained an average breadth of about three miles. They thus covered a surface of 200,000 acres. By the action of winds they were steadily widening. In their progress they not only buried the soil, but all the improvements, including the buildings. At Soulac, these drifting sands had left only the belfry of the old church above the surface. In the sections where the winds have the clearest sweep, the hills thus formed had attained a height of 300 feet. All attempts to stay their overwhelming advance had failed, until a plan for covering them with a forest, designed and proposed by M. Brémontier, was tried. That, at a very small outlay compared with the beneficial results, has proved permanently effectual. Its essential features were as follows: beginning at the foot of the dunes on the west or shoreward side, a plat, not exceeding in extent the means at command for the required treatment, was sown with 18 pounds per acre of pine-seed and 7 of broom-seed, to which in case the location was specially exposed to the winds, were added 4½ pounds of gourbet-seed, (*Calamagrostis arenaria*.) Immediately after the sowing, was laid on a covering of small brushwood, cut so as to lie entirely flat, and made to lap like the feathers of a bird. At points where necessary, a further temporary protection was added by fences of boards or wattled fencing. The former was constructed of inch boards, 6 or 8 inches broad, 5 feet long, inserted in the sand 2 feet, with intervening spaces of  $\frac{3}{4}$  of an inch; in the latter, the stakes were about 2½ inches in diameter and 5 feet in length, inserted 20 inches deep and 20 inches apart. The gourbet is described as a very hardy plant, unaffected by heat or cold, or proximity to the salt-water, growing at all seasons, and having the peculiarity of continuing a thrifty upward growth, however deeply the sand may drift around it. It is reported as growing vigorously through a layer of sand, above the surface on which it was planted, over 8 feet deep. The broom comes up much sooner than the pine, and, before the covering of cut brushwood fails, supplies its place with a vegetable growth. At the same time it serves as a protection for the later germinating and more slowly growing pines. But within four or five years after the planting, the pines

outstrip the broom, and become sufficiently rooted and branched to completely withstand the winds and fix the shifting sands. The broom is then removed and turned to profit by serving as brushwood for a new plat. The only further work required is to prune out the pines to the proper stand for the most thrifty forest. The work of thus staying the desolating line of march, one hundred and twenty miles long, and of repairing its zone of desolation, already three miles broad, was completed in 1862. The whole expense was 480,000 pounds sterling, averaging a little over 47 shillings, or \$11.75, per acre. The pines, now covering the dunes "with a magnificent forest," are described as a variety of "sea-pines," very thrifty in that climate and soil, and valuable for both timber and resin.

**CROPS OF DENMARK.**—British consular reports show that Denmark has produced, the past season, about 9,000,000 quarters of grain. The carefully-prepared statistics of this little kingdom show an increasing surplus, during the last five years, of live stock and provisions, but a declining surplus of grain, indicating that cattle-feeding and butter-making are attracting increased attention and effort. During 1874, the export of butter amounted to 103,322 barrels, a large increase over the preceding year, and about double the export of 1870. Of the export of 1874, 81,351 barrels went to Great Britain, where they commanded high prices. The export of eggs, from very insignificant beginnings, has within five years reached the aggregate of 1,426,900 score, representing a capital of 600,000 rixdollars. The Danish rixdollar is worth about 48.8 cents. The last year's export of fowls was officially valued at 263,289 rixdollars, all of which went to Germany. Rabbit-breeding has become one of the recognized industries, and is expected to furnish considerable matter for export. Denmark has the largest proportion of agricultural population—more than three-fourths. Danish farmers receive comparatively little attention from the government.

**IRRIGATION IN INDIA.**—The cost of the irrigation-canals of the Punjab was £2,684,279. The revenue from these canals amounts to £145,411, of which £48,555 were derived from water-rates, and £96,856 from increased land-revenue.

**HOP-GROWING IN TASMANIA.**—Near Norfolk and on the banks of the Derwent and Lachlan, are large alluvial, low-lying tracts, irrigated by dams in the rivers. The water of the Derwent is lifted by steam-pumps in order to gain the necessary fall. Here hop-growing has been inaugurated on a large scale by cultivators occupying from 6 to 90 acres each, the whole hop-acreage amounting to 488 acres. On the Huron and at other points, the acreage has been increased, making that of the whole island about 664 acres. Last year 627 acres in bearing averaged about 1,300 pounds, or 11 $\frac{3}{4}$  hundredweight per acre. The Norfolk district averaged 13 hundredweight per acre. During the current year it is estimated that the productive acreage will be smaller, and the average yield will be reduced to 11 hundredweight per acre, but from the decline of the British crops it is thought that the Tasmanian farmers will receive a larger sum for their product than last year. Prices ranged from 1s. 7d. to 2s. 6d. per pound. The primary markets of this trade, Melbourne and Sidney, are liable to be overstocked, not having any great capacity, and hence it becomes the producers to be careful in sending their crops to market. Irrigation is generally practiced, there being but few soils that can grow hops without it. Both science and experience are essential to the proper regulation of irrigation. Water must be admitted to the land at proper times and in proper quantity. Over-



irrigation induces an excessive flow of sap, which is sure to be arrested by the low temperature of the cold nights. This produces an abnormal condition favorable for the growth of the spider, for which no remedy has been discovered. The only way of resisting the spread of this pest is to destroy the infested plants.

Irrigation must be commenced before the natural moisture of the soil is exhausted; it is equally important to cut off the water at the right time, though occasionally, when pickers are scarce, it is let on again to keep the unripe plants green a little longer. Early irrigation is the most favorable to plant-growth. Poling is still in common use. Abundant manuring has been found necessary even on the richest soils. The picking season lasts five or six weeks. Pickers receive  $1\frac{1}{2}d.$  per bushel, good hands averaging about 15 bushels per day. The poor people from the towns thus find good employment, enabling them to tide over the winter in tolerable comfort. The sparseness of population, however, will probably prevent any great enlargement of hop-growing by necessitating a short supply of labor. Hops must be picked immediately after ripening, and any considerable delay is attended by deterioration of the crop. Hops are kiln-dried with either charcoal or anthracite, and require about twenty-four hours for this operation. Careful arrangements are made to keep the picking, drying, and pressing going forward without interruption.

**LATE AUSTRALIAN STATISTICS.**—The returns for the year 1874-75, show that South Australia still maintains its pre-eminence as a cereal-producing colony. In Victoria, wheat-culture has fallen off, which seems strange, in view of the fact that the country has been filling up more rapidly than ever before with population. The actually occupied area has reached 12,264,566 acres, or about half the area of Ohio. During 1874, 771,021 acres passed into private lands, nearly all of which is inclosed. The land under tillage increased 46,803 acres, making a total of 1,011,799 acres. The wheat-acreage declined 17,041; oats increased 3,930 acres, and barley 4,172 acres, yet the total grain-surface was but 496,141 acres, against 503,210 in 1873. Green and root crops, on a smaller acreage, yielded larger crops, especially potatoes, which, from an area 3,170 acres less than in 1873, produced 124,299 tons, or 14,477 tons more than the previous crop. The hay-crop of 157,336 tons covered 113,120 acres, or 3,448 acres more than the previous year. The average crop—1.03 tons per acre—was the same as in 1872 and 1873. The fallow land increased from 66,989 to 77,912 acres. Artificial grasses are increasing; rye-grass, lucerne, clover, and vetches, for fodder, declined 5,339 acres, but the loss is more than compensated by the increased culture of other perennial grasses, of which 46,374 acres were sown last year, making the total acreage in Victoria 254,278 acres. The acreage in tobacco has been enlarged to 733, and the crop, 6,839 hundredweight, is 3,145 hundredweight greater than last year. The vineyards report 8,545,364 vines, a decrease of 1,039,984, but it is believed that this decrease is mostly in worthless vines, adding but little to the productive value of the vine-area. The grape-yield has increased, 90,980 hundredweight being made into wine and brandy, or 5,709 hundredweight more than the previous year. The total vintage amounted to 599,093 gallons, an increase of 36,380.

Australian journals complain that Victoria does not produce enough breadstuffs for her own consumption. From the amount of land annually taken up, ostensibly for cultivation, it is argued that not only should the home demand be met, but also that a surplus for export should be



secured. The failure in this respect is attributed to the speculating character of the land appropriations. Men are purchasing largely of the best lands, and awaiting the rise in values in order to sell again. Only a portion of the new settlements are made by *bona-fide* cultivators. The liberalized land legislation is thus benefiting a class against whom it was intended to work, the land-sharks.

**NEW ZEALAND STATISTICS.**—Late returns do not indicate as rapid progress as in former years. The total area under cultivation in February, 1875, was 1,788,797 acres, an increase of 285,445 acres. The wheat-area was 105,673 acres against 132,425 the previous year, and the crop 2,974,339 bushels, a loss of 417,297 bushels. The average yield per acre, 28 bushels and 8 pounds, is still unapproached by any of the Australian colonies. Oats is the only crop showing a decided increase; it has become the leading grain-crop of the island. The acreage was 157,543, an increase of 48,071, and the crop 5,548,729 bushels, against 2,194,923 bushels the previous year. These figures do not include 21,053 acres of oats cut for hay, which, in addition to 41,159 acres of mown grass, yielded 52,201 tons of hay. The barley acreage declined from 22,132 to 16,235, and the yield from 606,492 bushels to 417,162 bushels. Potato-culture, on the contrary, advanced; the acreage rose from 11,614 to 12,152, and the aggregate yield from 51,757 tons to 63,682 tons. Permanent pastures cover 1,393,855 acres, an increase of 256,207. This one year's increase in New Zealand exceeds the entire breadth of Victoria. The high price of beef and mutton in New Zealand has induced this extension of grass culture. The agricultural population of the colony is rapidly increasing by immigration, and the railways under construction or in contemplation will soon give access to the markets of the world. The wheat-product is ample for home consumption. Including oats, there will be available, as breadstuffs-export the current year, over 20,000 tons.

**SHEEP-HUSBANDRY IN GEORGIA.**—A late "Manual of sheep-husbandry in Georgia," issued by the State commissioner of agriculture, gives the following points of information derived from inquiries addressed to correspondents in the different counties. Of those who have tested cross-breeds, 98 per cent. consider the cross between merino and native the most profitable. The following averages are deduced from a vast number of individual facts: Annual profit on capital invested in sheep, 63 per cent. Annual cost of keeping per head, 54 cents. Cost of raising wool, 6 cents per pound, the market-price for unwashed being 33½ cents per pound gross, and 27½ cents net. Each 100 ewes produce 74 lambs. Yield of unwashed wool, 3.44 pounds per head, yielding, at 27½ cents, 94 cents per fleece. Price of lambs sold to butchers, \$1.87 per head; price of stock-sheep, \$2.58 per head; price of mutton-sheep, \$2.75 per head.

The census of 1860 reported 512,618 sheep in Georgia; the census of 1870, 419,465; the latest returns of the tax-receivers show but 319,323; decrease from 1860 to 1870, 93,153; from 1870 to 1875, 100,142; total loss in fifteen years, 193,295, or 38 per cent., whereas there should have been an increase of 100 per cent. Ninety per cent. of the reports show that dogs are the *principal* obstacle to sheep-husbandry—in most of them the *only* one. Several state that sheep-husbandry has been entirely abandoned in consequence of the ravages of curs. That is, a capital which, in favored localities, in spite of these pests, yields an annual return of 63 per cent., is crippled and depressed by the presence of 99,415 dogs, which killed 28,625 sheep during the year. The losses by

dogs amount to 15 per cent. of the whole, while the losses from all other causes are but 6 per cent. There are 31 dogs to each hundred sheep. The commissioner estimates that the abatement of this nuisance would greatly enlarge the capital invested in sheep, and raise the annual rate of profit from 63 to 72 per cent. In a few years the number would be quadrupled, and the clear profit on the investment would amount to \$2,372,687 per annum, a sum exceeding the annual receipts of the State treasury, and more than a fourth of the State debt. The value of sheep killed last year, \$73,852, would more than pay the per diem and mileage of the house of representatives of the State.

Correspondents estimate that 100 sheep, regularly folded, would fertilize eight acres so as to double its next subsequent yield. At this rate the number of sheep now in Georgia would annually fertilize 25,544 acres. Supposing that unfertilized land would bring half a bale of cotton per acre, the increased yield of this area would be 12,772 bales, worth, at \$50 net per bale, \$638,600. If the number of sheep were raised to 2,000,000, which might easily be done, if the dogs' ravages were arrested, their manure would add \$4,000,000 annually to the production of the State. Thousands of farmers are ready to engage in this business as soon as the law affords adequate and just protection to this interest. Millions of acres, now unoccupied, will be opened as sheep-walks, and immigration will be enlarged. The large sheep-proprietors have capital enough invested to warrant keeping shepherds for the protection of their flocks. Small farmers cannot incur this expense, and consequently will not be able to engage in the business.

The climate of Georgia corresponds to that of the best sheep-growing regions in the world, *e. g.*, Spain and Australia. Mr. David Ayres, in Mitchell County, in the southwest, keeps 3,500 sheep, at an average annual cost of 14 cents per head; he shears about three pounds of wool per head, which he sells at 30 cents per pound, realizing 90 per cent. profit upon the capital invested. Lands suited to sheep-raising in that part of the State can be purchased at from \$1.50 to \$10 per acre. Mr. Ayres never feeds his sheep and has never introduced any improved breeds. A cross of merino upon his native stock would greatly enlarge these results. About all the care bestowed upon them is their annual shearing and marking. Dogs, hogs, and eagles are destructive, especially upon the lambs of this flock. This case is compared with that of a farmer in Washington County, Pennsylvania, who, from 650 highly-improved sheep, costing annually \$1.54 per head, shears four pounds of brook-washed wool, at 56 cents per pound, or \$2.24 per sheep. The last winter being very severe reduced his average return to \$1.60 per head. The sheep are worth \$3.50 per head, and the profits amount to 46 per cent. on the capital invested. The Georgia wool being free from hay-seed and cleansed by the heavy spring rains is nearly equal to the Pennsylvania washed wool. The latter occupies land worth \$50 per acre, or ten times that of the Georgia farmer. The Pennsylvanian keeps two sheep per acre, and the Georgian one; the former invests five times as much money as the latter in land and realizes but one-half the rate of profit.

A farmer in Putnam County, Middle Georgia, keeps 138 sheep, a cross between merino and common stock, as a part of his farming enterprise. They cost "only the salt they eat," while they realize annually 100 per cent. on the capital invested, from lambs, mutton, and wool. The fleeces average three pounds per head, and bring a minimum price of 25 cents, costing only the price of labor in shearing. This flock utilizes the Bermuda grass, so much dreaded by Georgia farmers in the summer, and



in winter ranges the fields from which crops have been gathered, and the canebrakes. No diseases infect the flocks to any marked extent in Georgia.

The commissioner insists that increase of lambs is increase of wool, and that lambing should take place as early in January as possible, as "a January lamb is worth two March lambs." The bucks should be allowed to run with the ewes about the 1st of August. During the lambing season the bearing ewes should be kept in a separate flock and daily attended to. If pasture be short they should be fed moderately on cotton-seed, which, with oats and rye pastures sown early in the fall, will give an abundant supply of milk and keep the ewes in healthy condition. The commissioner presents a variety of judicious suggestions suited to the wants of sheep-raisers in Georgia. Of the sheep-raising capacity of the State he remarks that there are 10,000,000 acres of land suited to this industry, which are practically unoccupied. The spontaneous Bermuda grass forms an impenetrable sod, and is fully equal to the Kentucky blue-grass. Where partly protected by pine-trees it remains green all winter. On lands unprofitable for cultivation, this grass will support five sheep per acre during nine months of the year. Other natural grasses may be profitably utilized in sheep-husbandry. Artificial pasture may be easily and cheaply secured. Pea-fields from which corn has been gathered will fatten sheep or prepare them for winter-quarters in the cotton-field, which, having been sown with rye or oats in August and September, will give nutritious winter-pasture. Turnips sown at the same period may also be used to give green food until the return of early spring vegetation. Movable fences will render it practicable to herd the flock for successive periods upon separate areas of turnips sufficient for their support. In consuming the crop the sheep will fertilize the land.

The legal protection of this industry is urged on considerations growing out of the labor question. It will relieve the pressure of the demand, and enable the farmers to deal more independently with it.

**WOOL-PRODUCTION OF SOUTH AMERICA.**—The wool-export of South America, by a rapid increase, reached 234,916 bales in 1868, most of which was from Buenos Ayres. Since then this upward movement has been stationary, the export of 1874 being 237,458, or less than 3,000 bales increase in six years. In 1862 the port of Buenos Ayres shipped abroad over 58,000,000 pounds of wool; in 1866 this aggregate was doubled; and in 1873 the figures of 1866 were increased 50 per cent. The official statistics of 1868 show that the Argentine Republic then had 67,700,000 sheep. At present the number is about 70,000,000, of which 60,000,000 are in the province of Buenos Ayres.

Sheep-husbandry, which to-day constitutes the principal industry of the Argentine Republic and of Uruguay, has made great progress in those countries within the last few years, and finds a prospect of still further expansion in view of the increasing European demand. But the conditions of production have been gradually changing. Sheep have been multiplied, not by the processes of intelligent breeding, but by a headlong impulse to enlarge the flocks, with but little regard to the means of subsistence, or the more exacting requirements of the foreign market. Buenos Ayres, especially, shows signs of having been overstocked with sheep. Its pastures are running low, as is indicated by the spread of epidemic and parasitic diseases. The leading parasites infecting South American sheep are the fluke in the liver and worms in the head, showing either a deterioration in the organic constitution of the animals, or in the quantity and quality of the pastures. Perhaps



both these influences have been operative. Buenos Ayres has a dry, hot climate, and vast plains lightly timbered, and originally covered by nutritious indigenous grasses. The increase of wool-production was at one time so rapid as to give rise to fears of overstocking the market. But from protracted droughts, from overstocking of pasturage, and from political convulsions, threatening the security of both life and property, this industry has of late years experienced a severe check. It is not probable that the pastures already occupied constitute the whole or even the greater part of the areas of this continent available for wool-production, but the power of the government is not adequate to the protection of this class of property in large areas of land occupied by a frontier population, and but little amenable to the restraints of social order. But as government becomes more stable, its power will probably be exerted to repress such disorders, and thus widen the area within which it will be safe to invest capital in sheep-husbandry.

In Australia, wool-production can no longer expect those sudden expansions which have so seriously disturbed the markets of the world within the past few years, as in the case of the opening up of the Riverina and North Queensland sheep-walks. The newly reconnoitered regions of West Australia are said to be of comparatively limited area. In the extreme northern parts of the country sheep cannot be profitably raised. In North Queensland, for instance, imported flocks, after apparently doing well for a time, began to decline in both wool and flesh, and finally became worthless. But the regions farther south, by judicious management, are evidently capable of a great enlargement of wool-production, as well as of a great improvement in quality of fleece. Here, as in South America, the limit of wool-production upon natural grasses is indicated by the prevalence of epidemic and parasitic disorders. It is evident, then, that natural resources may be overtaxed, and that wild grasses must be supplemented by artificial grasses and fodder-plants, if wool-production is to experience any further enlargement even in the wildernesses of South America and Australia. Another element of profit is also to be introduced into the problem—that of meat-production. The necessity of this is felt by sheep-raisers in both these great regions. In Buenos Ayres, where mutton has hitherto been of little value, it is now shipped to London in boxes, and sold at 12 cents per pound. Operators in this new trade now talk of throwing the meat of 10,000,000 sheep upon the foreign market annually. Such expectations are doubtless extravagant, but they indicate the gradual perception of a change of condition in production, which will compel sheep-raisers to enlarge the scope of their industry beyond mere wool-production. If these wild regions can be brought under the regime of civilized industry, we may expect a more regular and normal growth of wool-production, with less destructive fluctuations than in the past.

**SHEEP-BREEDING IN NEW SOUTH WALES.**—At a late meeting of the New South Wales Agricultural Society, Mr. John Smith traced the history of merino breeds of modern Europe, and compared them with the Australian merino. The Spanish merino was introduced into England by George III, in 1791 and in 1804. At a public sale of the progeny, rams averaged £19 14s., and ewes £8 15s. each. Four years later the rams averaged £33 10s. and ewes £23 12s. 6d. In 1810 rams were sold at an average of £58 and ewes £37 10s. per head. Subsequently the Merino Society was organized, under the presidency of Sir Joseph Banks, with fifty-four vice-presidents. Yet, after all this imposing demonstration, the attempt to cross the merino with the coarse-wooled

English sheep was a total failure. Not only were the points of difference too wide for combination, but also economic reasons arrested the project of amalgamation. Three Southdown sheep could be fattened as easily as one merino, and the demand of the English market for mutton rendered the lean merino a very undesirable acquisition. In Germany the perfection of the fleece was the leading idea, and hence the merino here found a more congenial home. The Australian merino is mostly of German origin instead of Spanish, its original stock. Hence, being the progeny of a cross, there is a tendency to individual degeneracy. Hence, also, the necessity, impressed by intelligent sheep-breeders, of culling out such animals from the breeding-flocks. Yet the merino type has attained in Australia higher qualities than any that could be imported from Europe at the present date. To a large extent sheep-breeding has there been judiciously conducted with reference to selection of breeding animals, and of the most eligible conditions of climate, soil, pasturage, &c. The undulating slopes of the great dividing-ridge of the continent turn out merinos in great perfection, endowed with superior softness and elasticity of fleece. The mild winters yield natural food, while the dryness of the climate favors the retention of yolk. The abundance of forest trees gives shelter in winter and shade in summer, thus modifying, to a very important degree the action of the natural elements upon the wool.

In Germany, sheep are too much confined in sheds, in order to preserve the fleece. Hence the growth of the animal, in size and muscle, is impeded, and its constitution weakened. The free exercise of the Australian sheep-walks, with the variety of pastures afforded, gives a symmetrical development and a hardy constitution, with a superior fleece. The German merino-wool, protected as it is from the elements, is superior to the Spanish in softness. Australian sheep-farming is yet to attain something of this result by providing shelter in the heavy-rain season. The flabby corrugations of the imported Negretti, in Australia, are soon rounded out by judicious breeding.

Adaptation to local climate and circumstances is a point of special importance in Australia. Flocks removed from the table-lands of New South Wales to the plains and sand-ridges of the Darling showed marked changes in the character of their fleece. Sheep first taken to Queensland, just north of New South Wales, and occupying the north-east corner of the continent, began to yield a light, harsh, and dry wool, bringing only reduced prices. In subsequent years, however, these qualities enhanced its value. Manufacturers found that the dry atmosphere, by absorbing oil from the fleece, increased the weight of wool proper, compensating the waste from scouring. Queensland wool then rose to prices higher than that of New South Wales of the same fineness. The hot sun and the fine sand mingled with the wool absorbed the yolk. The northern part of the continent lies within the tropics; hence it has been suggested that the breeds of these regions be constantly renewed, in order to prevent the deterioration of wool into hair. Much may be done in this direction by proper selection and by artificial shelter from the extreme sun-heat. The Negretti is, probably, the best sheep for these warm arid districts. Some districts of this region are supposed to be favorable to fine combing-wools. This class of wools require that the animal be kept in good condition through the winter as well as through the summer.

Some fine strains of Leicester blood have been introduced into Australia, but the perpetuation of their good qualities demands close attention and judicious management on the part of the breeder. Passing to

the interior, a great deterioration in sheep is noted. This is attributed to the land-laws not admitting of pastoral homesteads; and the *squatter* who merely camps upon the public lands breeds only for numbers, with but little regard for quality. A large portion of these sheep are not worth shearing. It is estimated that at least half of the 20,000,000 sheep of New South Wales should be slaughtered, and their places supplied by improved breeds of wool-producing animals. The improvement of 9*d.* per fleece on 10,000,000 sheep would amount to £375,000 or \$1,875,000 per annum.

The speaker complained of the land legislation, which crippled the greatest industrial interest of the colony—wool production. Squatters who have gone in advance of civilization and have established sheep-stations in the wilderness, dining off the kangaroo, extinguishing the bush-fires, and adding greatly to the beef and mutton product of the country, are at the mercy of free-selectors, who, under the law, can appropriate all the improvements found upon the land. A pre-emption law, like that of our American public-land system, by giving the actual settler inceptive rights within a limited period to the refusal of the land, would arrest this land-grabbing process and secure the possession of the soil to that class of owners which will manage it more in accordance with the public interest. The regular occupation of the country and the erection of fences is necessary to secure the excellencies of the Australian merino. The indigenous grasses of the country are disappearing and varieties bearing pernicious seed are springing up in their place. The country must be fenced and sown in desirable varieties in order to secure adequate nourishment for the increasing flocks of the colony.



# MARKET-PRICES OF FARM-PRODUCTS FOR NOVEMBER, 1875.

The following quotations represent the state of the market, as nearly as practicable, at the beginning of the month:

Articles.	Prices.	Articles.	Prices.
<b>NEW YORK.</b>		<b>BOSTON—Continued.</b>	
Flour, superfine.....per bbl.	\$5 10 to \$5 40	Beef, family.....per bbl.	\$16 50 to \$17 00
extra State.....do.	5 50 to 6 30	Pork, mess.....do.	23 00 to 23 50
extra to choice western,		prime.....do.	16 00 to 17 00
per barrel.....do.	5 50 to 9 00	Lard.....per lb.	13½ to 14½
common to fair southern		Butter, New York and Vermont,	
extras.....per bbl.	5 65 to 7 00	per pound.....do.	22 to 33
good to choice southern		western.....per lb.	13 to 34
extras.....per bbl.	7 10 to 8 75	Cheese, New York and Vermont	
Wheat, No. 1 spring.....per bush.	1 36 to 1 43	factory.....per lb.	10½ to 13½
No. 2 spring.....do.	1 25 to 1 34	western factory.....do.	8 to 13½
winter, red, western,		Sugar, fair to good refining.....do.	7½ to 8½
per bushel.....do.	1 23 to 1 45	Cotton, ordinary to good ordi-	
winter, amber, western,		nary.....per lb.	11½ to 12½
per bushel.....do.	1 23 to 1 45	low middling to good	
winter, white, western,		middling.....per lb.	13½ to 14½
per bushel.....do.	1 35 to 1 50	Wool, Ohio and Pennsylvania,	
Rye.....per bush.	75 to 83	per pound.....do.	42½ to 50
Barley.....do.	90 to 1 13	Michigan.....per lb.	42 to 45
Corn.....do.	70 to 70½	other western.....do.	42 to 43
Hay, first quality.....per ton.	17 00 to 21 00	pulled.....do.	35 to 53
second quality.....do.	14 00 to —	combing fleece.....do.	32 to 62½
Beef, mess.....per bbl.	11 50 to 12 00	California.....do.	16 to 35
extra mess.....do.	12 00 to 13 00		
Pork, mess.....do.	22 75 to 23 00	<b>PHILADELPHIA.</b>	
extra prime.....do.	16 00 to 16 50	Flour, superfine.....per bbl.	4 62½ to 5 00
prime mess.....do.	19 50 to 20 00	Pennsylvania extra to	
Lard.....per lb.	12½ to 13½	choice.....per bbl.	4 75 to 6 75
Butter, western.....do.	12 to 34	western extra to choice,	
State.....do.	23 to 36	per barrel.....do.	6 00 to 6 75
Cheese, State factory.....do.	7½ to 14	Wheat, red.....per bush.	1 00 to 1 40
western factory.....do.	6 to 13½	amber.....do.	1 32 to —
Sugar, fair to prime refining,		white.....do.	1 45 to 1 55
per pound.....do.	7½ to 8	Rye.....do.	75 to 78
Cotton, ordinary to low ordi-		Barley.....do.	— to —
nary.....per lb.	11½ to 13½	Corn.....do.	72 to 75
low middling to good		Oats.....do.	35 to 43
middling.....per lb.	13½ to 14½	Hay, prime baled.....per ton.	23 00 to 25 00
Tobacco, lugs.....per lb.	7 to 9	baled, common to fair ship-	
low leaf to medium		ping.....per ton	20 00 to 22 00
leaf.....per lb.	9½ to 13	Beef, western mess.....per bbl.	7 00 to 9 00
Wool, American XXX and pick-		extra mess.....do.	8 00 to 9 00
lock.....per lb.	50 to 54	Warthman's city family,	
American XX and X, per		per barrel.....do.	16 00 to —
pound.....do.	43 to 45	Pork, mess.....per bbl.	22 25 to 23 75
American, combing, per lb.	55 to 65	prime mess.....do.	18 50 to —
pulled.....do.	27 to 46	prime.....do.	16 00 to 17 00
California spring clip, per		Lard.....per lb.	12½ to 14½
pound.....do.	22 to 32	Butter, choice Middle State, do.	25 to 35
California fall clip, per lb.	17 to 22	choice western.....do.	25 to 31
		Cheese, New York factory, good	
<b>BOSTON.</b>		to fancy.....per lb.	12 to 14½
Flour, western superfine, per bbl.	5 00 to 5 25	Ohio factory, good to fancy,	
common western spring		per pound.....do.	10 to 13½
extra, per bbl.....do.	5 50 to 6 00	Sugar, fair to good refining, per lb.	7½ to 8½
good to fancy northwest-		Cotton, ordinary to good ordi-	
ern extras.....per bbl.	6 00 to 9 25	nary.....per lb.	11 to 13
good to fancy western, per		low middling to good	
bbl.....do.	6 50 to 9 00	middling.....per lb.	13½ to 14½
southern family.....per bbl.	7 50 to 9 00	Wool, Ohio X and XX.....do.	45 to 47
Wheat.....per bush.	1 30 to 1 55	other western.....do.	40 to 45
Corn.....do.	79 to 83	tub-washed.....do.	54 to 60
Oats.....do.	43 to 56	pulled.....do.	38 to 40
Rye.....do.	95 to 1 00	combing.....do.	62 to 64
Barley.....do.	1 00 to 1 30		
Hay, eastern and northern, per		<b>BALTIMORE.</b>	
ton.....do.	13 00 to 22 00	Flour, superfine.....per bbl.	4 50 to 5 00
Beef, mess.....per bbl.	10 00 to 11 00	extra.....do.	5 00 to 5 50
extra mess.....do.	11 00 to 12 00	family and fancy.....do.	5 75 to 6 75

## Market-prices of farm-products—Continued.

Articles.	Prices.	Articles.	Prices.
BALTIMORE—Continued.		CHICAGO—Continued.	
Wheat, red ..... per bush.	\$1 36 to \$1 48	Oats, No. 2 ..... per bush.	\$0 31½ to \$0 31½
amber ..... do.	1 50 to 1 55	Hay, timothy ..... per ton.	14 00 to 16 00
white ..... do.	1 20 to 1 50	prairie ..... do.	8 50 to 11 00
Rye ..... do.	80 to 85	Beef, mess ..... per bbl.	10 00 to —
Oats ..... do.	40 to 48	extra mess ..... do.	11 00 to —
Corn ..... do.	63 to 77	Pork, mess ..... do.	21 00 to 21 50
Hay, Middle States ..... per ton.	19 00 to 25 00	prime mess ..... do.	18 00 to 18 25
Pork, mess ..... per bbl.	23 50 to —	extra prime ..... do.	14 00 to 14 25
extra prime ..... do.	16 50 to —	Lard ..... per lb.	12 1-6 to —
Lard ..... per lb.	14½ to 17	Butter, choice to fancy ..... do.	30 to 33
Butter, western ..... do.	26 to 28	medium to good ..... do.	20 to 24
eastern ..... do.	26 to 35	Cheese, good to fancy ..... do.	11½ to 13
Cheese, western factory, good to		Sugar, brown, common to choice,	
choice ..... per lb.	12 to 13½	per pound ..... do.	7½ to 9½
eastern factory, good to		Wool, tub-washed ..... per lb.	44 to 52
choice ..... per lb.	13 to 14½	fleece-washed ..... do.	38 to 44
Sugar, fair to good refining, do.	7½ to 8	unwashed ..... do.	25 to 33
New Orleans, grocery		pulled ..... do.	— to —
grades ..... per lb.	— to —		
Tobacco, lugs ..... do.	6½ to 9	SAINT LOUIS.	
common to medium leaf,		Flour, winter, common to choice,	
per pound ..... do.	9 to 11	per bbl. ....	4 00 to 6 75
Cotton, ordinary to good ordi-		spring ..... per bbl.	— to —
nary ..... per lb.	— to 12½	Wheat, white winter ..... per bush.	1 10 to 1 35
low middling to good		red winter ..... do.	1 00 to 1 55
middling ..... per lb.	12½ to 13	spring ..... do.	— to —
CINCINNATI.		Corn ..... do.	46 to 68
Flour, superfine ..... per bbl.	4 00 to 4 25	Rye ..... do.	50 to 68
extra ..... do.	4 50 to 5 00	Barley ..... do.	55 to 1 30
family and fancy ..... do.	5 40 to 6 25	Oats ..... do.	28 to 42
Wheat, winter, red ..... per bush.	1 00 to 1 45	Hay, timothy ..... per ton.	16 50 to 18 00
hill, (amber) ..... do.	— to —	prairie ..... do.	8 00 to 10 50
white ..... do.	1 00 to 1 45	Beef, mess ..... per bbl.	14 00 to 14 50
Rye ..... do.	73 to 80	Pork, mess ..... do.	21 60 to 22 00
Barley ..... do.	50 to 1 20	Lard ..... per lb.	14½ to 14½
Corn ..... do.	45 to 63	Butter, prime to choice dairy,	
Oats ..... do.	25 to 42	per pound ..... do.	28 to 30
Hay, baled, No. 1 ..... per ton.	18 00 to 19 00	country packed ..... per lb.	20 to 25
lower grades ..... do.	12 00 to 16 00	Cheese, Ohio factory ..... do.	13½ to 13½
Beef, plate ..... per bbl.	— to —	N. Y. factory ..... do.	13 to 14
Pork, mess ..... do.	21 00 to 22 00	Tobacco, lugs ..... do.	5½ to 5½
Lard ..... per lb.	12½ to 13½	leaf ..... do.	7½ to 17
Butter, choice ..... do.	26 to 30	Cotton, ordinary to good ordi-	
prime ..... do.	24 to 26	nary ..... per lb.	10½ to 11½
Cheese, prime to choice factory,		low middling to good mid-	
per pound ..... do.	13 to 14	dling ..... per lb.	12 to 13½
Sugar, New Orleans, fair to good,		Wool, tub-washed ..... do.	49 to 56
per pound ..... do.	8½ to 8½	fleece-washed ..... do.	47 to 45½
Tobacco, lugs ..... per lb.	15 to 20	unwashed ..... do.	25 to 35
leaf ..... do.	28 to 30		
Cotton, ordinary to good ordi-		NEW ORLEANS.	
nary ..... per lb.	10½ to 11½	Flour, superfine ..... per bbl.	4 30 to 4 50
low middling to good		extra ..... do.	4 75 to 5 75
middling ..... per lb.	12½ to 13½	choice to fancy ..... do.	6 00 to 8 25
Wool, fleece-washed, common to		Corn ..... per bush.	75 to 85
fine ..... per lb.	38 to 43	Oats ..... do.	43 to 54
tub-washed ..... do.	43 to 58	Hay, choice ..... per ton.	27 00 to —
unwashed, clothing ..... do.	28 to 30	prime ..... do.	22 00 to 25 00
unwashed, combing ..... do.	34 to 38	Beef, Texas ..... per bbl.	10 00 to 10 50
pulled ..... do.	31 to 38	western ..... do.	16 00 to —
CHICAGO.		Fulton market ..... per ¼ bbl.	11 50 to 12 00
Flour, choice winter extras,		Pork, mess ..... per bbl.	24 00 to 24 37½
per barrel ..... do.	7 00 to 8 00	Lard ..... per lb.	14½ to 15½
common to good white		Butter, choice Goshen ..... do.	33 to 35
winter extras ..... per bbl.	5 75 to 6 75	choice western ..... do.	23 to 28
choice spring extras ..... do.	5 50 to 6 00	Cheese, choice western factory,	
patent spring ..... do.	6 75 to 8 50	per pound ..... do.	13½ to 14½
spring superfines ..... do.	3 75 to 4 50	N. Y. cream ..... per lb.	16 to —
Wheat, No. 1 spring ..... per bush.	— to —	Sugar, fair to fully fair ..... do.	7 to 7½
No. 2 spring ..... do.	1 08½ to 1 13	prime to choice ..... do.	8½ to —
No. 3 spring ..... do.	94 to 94½	clarified, white, and yel-	
Corn, No. 2 ..... do.	51½ to 52	low ..... per lb.	8½ to 9½
Rye, No. 2 ..... do.	68 to 68½	Tobacco, lugs ..... do.	7 to 9
Barley, No. 2 ..... do.	81 to 83½	leaf ..... do.	9½ to 17

## Market-prices of farm-products, &amp;c.—Continued.

Articles.	Prices.	Articles.	Prices.
NEW ORLEANS—Continued.		SAN FRANCISCO—Continued.	
Cotton, ordinary to good ordinary.....per lb.	— — to \$0 11½	Corn, white.....per cental.	\$1 20 to \$1 40
low middling to good middling.....per lb.	\$0 12½ to 14½	yellow.....do...	1 17½ to 1 20
Wool, lake.....do...	— — to — —	Hay, State.....per ton.	12 00 to 21 00
SAN FRANCISCO.		Beef, mess.....per bbl.	8 00 to 10 00
Flour, superfine.....per bbl.	4 50 to 5 00	family mess.....per ½ bbl.	8 00 to 10 00
extra.....do...	5 25 to 5 75	Pork, mess.....per bbl.	22 00 to 23 00
family and fancy.....do...	6 00 to 6 50	prime mess.....do...	17 00 to 18 00
Wheat, California.....per cental.	1 85 to 2 05	Lard.....per lb.	13½ to 16
Oregon.....do...	2 00 to 2 05	Butter, overland.....do...	15 to 25
Barley.....do...	1 25 to 1 50	California.....do...	30 to 60
Oats.....do...	1 65 to 2 00	Oregon.....do...	20 to 25
		Cheese.....do...	12½ to 15
		Wool, native.....do...	10 to 15
		California.....do...	15 to 25
		Oregon.....do...	15 to 25

## LIVE-STOCK MARKETS.

NEW YORK.		CHICAGO.	
Cattle, extra beefes...per cental.	\$13 00 to — —	Cattle, extra-graded steers, 1,300 to 1,550 pounds, per cental.	— — to — —
good to prime.....do...	11 75 to \$12 75	choice beefes, 1,250 to 1,450 pounds, per cental.	\$5 80 to — —
common to fair.....do...	8 00 to 11 50	good beefes, 1,100 to 1,350 pounds.....per cental.	4 75 to \$5 25
Texans.....do...	6 50 to 8 50	medium, 1,150 to 1,250 pounds.....per cental.	4 40 to 4 65
milch-cows.....per head.	— — to — —	inferior natives.....do...	2 55 to 4 05
veal calves.....per cental.	— — to — —	Texans, through droves, per cental.....do...	2 75 to 3 75
Sheep.....do...	4 75 to 6 00	Sheep.....per cental.	3 00 to 5 00
Swine.....do...	8 6½ to — —	Swine.....do...	6 50 to 8 00
PHILADELPHIA.		SAINT LOUIS.	
Cattle, prime beefes...per cental.	7 00 to 7 50	Cattle, good to choice native steers, per cental.....	5 25 to 5 50
fair to good.....do...	5 50 to 6 75	common to fair natives, per cental.....do...	3 50 to 4 50
common.....do...	3 50 to 5 50	inferior and common, per cental.....do...	2 25 to 3 50
Sheep.....do...	4 50 to 6 00	Texans, fair to choice, per cental.....do...	3 00 to 4 25
Swine, corn-fed.....do...	11 50 to 12 25	Sheep.....per cental.	3 00 to 4 75
BALTIMORE.		Swine.....do...	5 25 to 7 25
Cattle, best beefes...per cental.	5 62 to 6 12	Horses, plugs.....per head.	25 00 to 50 00
first quality.....do...	4 50 to 5 62	plain.....do...	60 00 to 70 00
medium or good quality, per cental.....do...	4 00 to 4 50	street-car.....do...	75 00 to 125 00
ordinary.....per cental.	2 50 to 3 50	heavy-draught.....do...	115 00 to 125 00
general average of the market.....per cental.	4 12	good drivers.....do...	100 00 to 150 00
most of the sales.....do...	3 50 to 4 75	extra.....do...	175 00 to 200 00
milch-cows.....per head.	35 00 to 40 00	Mules, 14 to 15 hands high, do...	50 00 to 120 00
Sheep.....per cental.	4 00 to 5 50	15 to 16 hands high, do...	120 00 to 150 00
Swine.....do...	10 50 to 10 75	extra.....do...	175 00 to 200 00
CINCINNATI.		NEW ORLEANS.	
Cattle, good to prime butchers' steers.....per cental.	4 00 to 5 50	Cattle, Texas beefes, choice, per head.....do...	40 00 to 46 00
fair to medium.....do...	3 00 to 4 00	first quality.....per head.	30 00 to 35 00
common.....do...	2 00 to 3 00	second quality.....do...	20 00 to 25 00
milch cows.....per head.	30 00 to 60 00	western.....per cental.	— — to — —
veal calves.....per cental.	2 50 to 7 00	milch-cows.....per head.	— — to 90 00
Sheep.....do...	3 25 to 5 25	Sheep.....do...	2 00 to 6 00
Swine.....do...	6 75 to 7 60	Swine.....per cental.	8 00 to 11 00

## FOREIGN MARKETS.

The sales of English wheat in the United Kingdom, during the first week of November, amounted to 52,392 quarters, at 47s. 4d., against



54,414 quarters, at 44s. 1d., during the corresponding week of 1874. The London averages were 48s. 9d., on 2,592 quarters. The imports into the United Kingdom during the last week of October were 1,286,686 hundred-weight. The following Monday opened upon a moderate supply of British wheat, but with not less than 92,000 quarters of foreign wheat, of which 60,000 were from Russia and 12,000 from the United States. In Paris the wheat-offers by growers were scanty, but numerous holders at second-hand were ready to dispose of their stocks. Notwithstanding some local enhancement in the provinces, it was difficult to secure previous rates. Prices ranged from 42s. to 50s. per quarter, the latter for fine white. At Havre, fine American and Chilian received offers of 49s. 6d. per quarter. In the French country-markets offers were not numerous, and prices in consequence were steady. During the week 9 local markets had advanced, against 23 the previous week; 63 were from calm to firm, against 62 the previous week; 21 either declined, or showed such tendency, against 14 the previous week. At Brussels the top price of native wheat was 51s. per quarter. Wheat on the spot, at Hamburg, was calm at 43s.; at Cologne, firm at 44s.; at Berlin it stood at 42s. 6d., with an upward tendency; at Dantzic it brought 55s. to 58s.

In Mark Lane, Essex and Kent white, 43s. to 55s. per quarter; ditto red, 42s. to 50s.; Norfolk, Lincolnshire, and Yorkshire, red, 41s. to 50s.; foreign wheats, Dantzic, 52s. to 57s.; Königsberg, 49s. to 54s.; Rostock, 47s. to 50s.; Silesian red, 46s. to 51s.; Pomeranian, Mecklenburg, and Uckermark, 46s. to 49s.; Ghirka, 45s. to 47s.; Russian hard, 42s. to 45s.; Saxenska, 46s. to 50s.; Danish and Holstein red, 46s. to 49s. American red, 45s. to 49s.; Chilian white, 51s.; Californian, 53s.; Australian, 52s. to 56s.

In Liverpool, British white was quoted at 10s. to 10s. 4d. per cental; ditto red, 9s. 6d. to 9s. 10d.; Canadian white, 10s. 6d. to 11s.; American white, 10s. 6d. to 11s. 6d.; ditto red winter, 10s. 3d. to 10s. 8d.; No. 1 Minnesota, 10s. to 10s. 3d.; spring No. 1, 10s. to 10s. 1d.; spring No. 2, 9s. to 9s. 8d.; spring No. 3, 8s. 10d. to 9s.; French, 10s. to 10s. 3d.; Bombay, 9s. 3d. to 10s. 6d.; Kurrachee, 8s. 11d. to 9s. 1d.; Egyptian, 7s. 7d. to 10s. 6d.; Californian, 10s. 11d. to 11s. 1d.; ditto club, 11s. 5d. to 11s. 8d.; Oregon, 11s. 5d. to 11s. 9d.; Chilian, 10s. 5d. to 10s. 7d.; Australian, 11s. 8d. to 11s. 10d.

FLOUR.—The imports of flour into the United Kingdom, during the last week of October, amounted to 144,549 hundred-weight. The following week opened with good arrivals of British flour, but the trade was quiet, only the best sorts of either domestic or foreign flour being sought for retail. In Mark Lane, the best town-households were quoted at 43s. to 47s. per 280 pounds; best country-households, 37s. to 40s.; Norfolk and Suffolk, 33s. to 35s.; American, 24s. to 29s. per barrel. In Liverpool, English and Irish superfines, 37s. to 39s. per 280 pounds; ditto extra, 40s. to 42s.; French, 40s. to 48s. 6d.; Trieste, 50s. to 62s.; Chilian, 36s. to 39s.; Californian, 39s. to 40s.; American, western and extra State, 26s. to 28s.; Baltimore and Philadelphia, 26s. to 31s.; Ohio and extra, 28s. 6d. to 31s.; Canadian and extra, 28s. 6d. to 31s. 6d. In Paris, prices for consumption ranged from 34s. 7d. to 38s. 7d. per 280 pounds; superior flour, for November, was held at 36s. 1d.

MAIZE.—In Mark Lane the supply of maize was fair, but previous values were maintained. White and yellow were quoted at 30s. to 32s. per quarter. At Liverpool, American white brought 32s. 6d. per 480 pounds; ditto, mixed, 31s. 6d. to 31s. 9d.; Galatz, 32s. 6d.; Trieste, 31s. to 31s. 6d.; Dais, 26s. to 29s. At Paris the best old maize was 38s. per quarter.

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